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ABSTRACT

Eight papers presented at a September, 1985 forum concerned with the school to work transition of handicapped youth are presented. Papers were developed as part of a project, "Transitional Programming for Handicapped Youth: Interdisciplinary Leadership Preparation Program at the University of Illinois (Urbana-Champaign). An introductory chapter, "Transition from School-to-Work: The Education and Training Enterprise" and a synthesis chapter, "Challenges and Future Directions" were prepared by L.A. Phelps, organizer and chair of the forum. Papers have the following titles and authors: "Secondary Vocational Education" (R.B. Cobb); "Postsecondary Vocational Education" (J. Brown); "The Job Training Partnership Act and Job Corps" (L. Tindall); "Business and Industry Training Programs" (K. Shaffer); "Proprietary Schools: A Case Study" (R. McCrae); "Higher Education" (J. Floyd); "Education and Training of Disabled Youth in Western Europe" (B. Reubens); "Transition to Employment for Individuals with Moderate and Severe Handicaps" (R.T. Vogelsberg). Summaries of the discussions which followed each paper are also provided. (DB)

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School-to-Work Transition for Handicapped Youth: Perspectives on Education and Training

Phelps

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School-to-Work Transition for Handicapped Youth: Perspectives on Education and Training

Edited by

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September, 1986

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Preface

Throughout the 1980s the educational and employment prospects for our nation's youth have been the center for extensive, continuing, public debate. High levels of youth unemployment, the lack of basic skills attainment, and the impact of technology in the workplace are three major issues that have focused this debate. Major curricular reforms for the nation's schools and universities have been proposed by various commissions and study groups representing the views and interests of business, federal and state legislators, parents, educators, and a host of others. Many of these reports recommend policy and programmatic interventions designed to create a smoother transition between the schooling and the initial employment phase of adult life.

The problems of youth unemployment and school-to-work transition are particularly acute for handicapped youth. Madeline Will, the U.S. Assistant Secretary for Special Education and Rehabilitative Services, notes that the majority of the 300,000 handicapped youth leaving school each year are either unemployed or significantly underemployed, and most have earnings at or below the poverty level. In response to this pressing problem, the Congress and the U.S. Department of Education have funded a series of demonstration, research, and personnel preparation projects to further study the complexities of the problem, develop appropriate interventions, and train professionals from different disciplines and fields to facilitate the adoption and use of improved practices. Over the past two years, approximately 150 projects have been funded representing an investment of more than $7 million annually. Universities, state education and rehabilitation agencies, local schools, rehabilitation facilities, and parent and advocacy organizations have developed and adopted innovative program models and undertaken applied research and development projects. Initially funded in October, 1984, the Transitional Programming for Handicapped Youth: Interdisciplinary Leadership Preparation Program at the University of Illinois at Urbana- Champaign was one of these projects.

Over the three year funding period, the program provides doctoral level preparation for five students and masters level training for ten students who plan to take leadership roles in universities and other organizations serving handicapped youth. The students were selected from varied disciplines and professional backgrounds such as special education, vocational education, rehabilitation, social work, developmental disabilities, and business, to ensure that the program and its instructional components would address the complexities of the transition process from multiple perspectives. The faculty members directly involved in the program are also drawn from multiple fields: Dr. L. Allen Phelps (vocational education), Dr. Janis Chadsey-Rusch (special education), Dr. Paula Meares (social work), and Dr. Janet Floyd (rehabilitation). The students complete coursework, seminars, practica, and assistantship experiences based on an individualized program of graduate study. The coursework and related experiences focus on building their competency in three strands-- transitional programming, social and organizational change strategies, and personnel development practices.

Central to the program's instructional design is an Annual Forum which provides an opportunity for the faculty and graduate students to interact with distinguished leaders and scholars regarding transition-related issues for handicapped youth. The first Forum was held September 4-6, 1985 and focused on education and training systems and issues. Subsequent forums in 1986 and 1987 will examine the topics of employment and technology respectively. During the two-day Forum, approximately 90 minutes was set aside for presentation and discussion of each of eight major papers. Program faculty members served as session leaders while the graduate students and other University faculty members undertook the role of discussants.

Eight of the ten papers contained herein were presented at the Forum. Following the Forum, the presenters were invited to revise their papers based on the comments provided by the discussants and written critiques offered by various students and faculty members. As the final papers were received, the graduate student discussants were asked to develop brief Commentary statements, which are also included herein. These statements note the significant points raised in each paper and offer supplementary perspectives on selected issues. The introductory and synthesis chapters were prepared by Dr. Phelps, who served as organizer and chair for this initial Forum.

Several individuals were instrumental in the successful conduct of the Forum as well as the development of this proceedings document. Ms. Patricia Violas, the administrative assistant for the Interdisciplinary Transition Program, was extremely helpful in managing the details of conference planning, text editing, and printing. A good deal of the credit for the success of the Forum is attributable to Pat's diligence and insight. Ms. Crystal Sargent was also extremely helpful in tracking down references, as well as in editing and proofing the document. Each of the ten 1985-86 graduate students deserve special recognition for their scholarship and professionalism in critiquing the papers, authoring the Commentaries, and serving as discussants during the Forum. A number of the scholars participating in the Forum offered unsolicited comments noting the outstanding quality of their interaction with the students in the Interdisciplinary Transition Program. Finally, the members of the program faculty, Professors Chadsey-Rusch, Floyd, and Meares, were extremely helpful in planning the Forum, reviewing preliminary plans, critiquing the papers, and offering continuing support for this interdisciplinary project.

Chapter 1

Transition from School-to-Work: The Education and Training Enterprise

L. Allen Phelps, Ph.D.

University of Illinois at Urbana-Champaign

Transition from School-to-Work: The Education and Training Enterprise

This introductory chapter focuses upon the educational issues and challenges found embedded in the school-to-work transition of handicapped youth. Education and training programs serve as the foundation from which handicapped individuals, like all other youth, move toward their adult working life. Historically, the various public and private educational organizations of our nation have served handicapped youth with varying degrees of success. While mildly handicapped youth (slow learners, problem kids, dropouts) have often been accommodated over the years in remedial and vocational classes, apprenticeship training, and on-the-job or technical training programs sponsored by their employers; the more severely and physically handicapped youth have often been excluded from these programs and employment opportunities simply because of the visible nature of their handicap. In the early part of this century, youth with emotional, psychological, and mental problems were often institutionalized with little or no attention given to their education and training needs. Beginning in the early 1960s with the arrival of significant litigation and federal and state legislation requiring that handicapped youth be given equal educational opportunity, public schools and colleges began the long and still largely incomplete task of developing accessible and appropriate educational programs. Further, a number of private schools and training centers were founded to serve the educational needs of the more severely handicapped populations who could not be successfully mainstreamed.

Following a brief analysis of the school-to-work transition problems of handicapped youth, this chapter will present a conceptual model for the transition process. The following sections will provide an overview of the six major education and training systems found in the U.S.--secondary-level vocational education, postsecondary vocational education, public-supported job training programs, business and industry sponsored training, higher education, and proprietary (private) trade and vocational schools. It is acknowledged that military training and apprenticeship programs are also major job training systems found in the U.S., but these systems have historically not included formal mechanisms to serve handicapped youth for reasons of national security (military) and private control of entry to the system (apprenticeship). The chapter concludes with a discussion of key issues and critical questions for consideration within and across the various education and training systems.

School-to-Work Transition: An Overview

Within the last 15 years various pieces of federal legislation, litigation, and state legislation have been enacted which address the complexities of providing appropriate secondary education and transition services to the nation's four million handicapped youth ages 16-24. The significant societal and personal costs associated with the unemployment and underemployment of handicapped adults have raised the issue to a national level priority leading to the establishment of school-to-work transition as a major priority of the U.S. Office of Special Education and Rehabilitative Services in 1984 (Will, 1984). In all likelihood, it will remain as a national imperative until considerably higher levels of employment, educational attainment, and successful community adjustment are realized by youth with disabilities.

The economic dimensions of the problem are significant and pervasive among both handicapped youth and adults. Of the approximately 250,000-300,000 handicapped youth who leave high school each year, the vast majority encounter severe unemployment and underemployment problems. Citing data from the 1978 Survey of Disability and Work by the Social Security Administration, Mathematica Policy Research, Inc. (1984) notes that:

- Among the 22 million persons with the 18-64 age range, of those estimated to have work disabilities in the summer of 1978, 12 million were not in the labor force. (p. 66)
- The nearly 10 million disabled persons in the labor force had an unemployment rate of 7.0 percent, compared to 4.5 percent for persons without disabilities. (p. 66)
- Among the 11 million severely limited persons, only 1.5 million or 14 percent were in the labor force, and these had an unemployment rate of 12 percent. (p. 66)
- Part-time and part-year employment were more common among employed persons with disabilities than among those without disabilities. (p. 72)
- The median earnings of disabled persons who worked in 1977 were approximately six thousand dollars--more than three thousand dollars lower than the median earnings of workers without disabilities. (p. 74)

Follow-up studies of former high school special education students have documented relatively high rates of unemployment (typically 50% and above), limited involvement in seeking work, and the provision of only minimal assistance from schools and other agencies in helping handicapped youth locate employment (Hasazi, Gordon, & Roe, 1985).

Without question, handicapped youth and adults continue to suffer major economic disadvantages in the labor market in comparison to the nondisabled population. The extent to which such difficulties are due to employment conditions in the labor market, inadequate or inappropriate vocational and educational preparation, lack of transitional support services, or other related factors (e.g., employer attitudes, social welfare disincentives, etc.) is difficult to quantify and judge. Regardless of the cause, these conditions create major economic difficulties for the nation's taxpayers and disabled citizens. The cost of supporting unemployed disabled individuals via sheltered workshop programs, day activity centers, unemployment compensation, SSI, SSDI, and other federal and state programs can run as high as $12,000-$15,000 annually (Bowe, 1980, p. 27). Alternatively, the economic benefits from placing and supporting--to the extent necessary--handicapped individuals in competitive employment include a larger tax base, greater productivity capacity for the nation, and significant reduced social costs.

Other studies have pointed out the problems and circumstances encountered by handicapped youth during and following their enrollment in secondary schools. High School and Beyond, a continuing national longitudinal study of a representative sample of 30,000 sophomores and 28,000 seniors, was initiated in 1980 and included self-identified handicapped students (approximately 7-8% reported being in a special program for the physically or educationally handicapped). For these mildly handicapped students, whether enrolled in special education or regular education, the prospects for completing high school were generally bleak: (Owings & Stocking, 1985)

- 22 percent of the 1980 handicapped sophomores, as compared to 12 percent of the nonhandicapped students, had dropped out two years later.
- 45 percent were in the lowest quartile on a combined cognitive test assessing vocabulary, reading, math, and science, compared to only 19 percent of the nonhandicapped students.
- 27 percent reported getting mostly C's and D's compared to 18 percent of the regular students.
- Only 29 percent were enrolled in vocational programs.

Other recent investigations have cited the lack of: vocational assessment for handicapped youth in-school settings; career related objectives and transitional plans in IEPs (Cobb & Phelps, 1983); counseling and career planning services; parent involvement; comprehensive work experience programs for youth while in high school; placement in vocational education programs; and cooperative programming with vocational rehabilitation and other agencies to ensure a continuum of necessary support as disabled youth exit high school and enter employment.

Clearly, the need to broaden and strengthen the quality of educational experiences received by handicapped youth in secondary schools and the transitional phase of their youth is imperative. Without better preparation, the likelihood of improving their employment prospects and successful adjustment to living independently will be minimal at best.

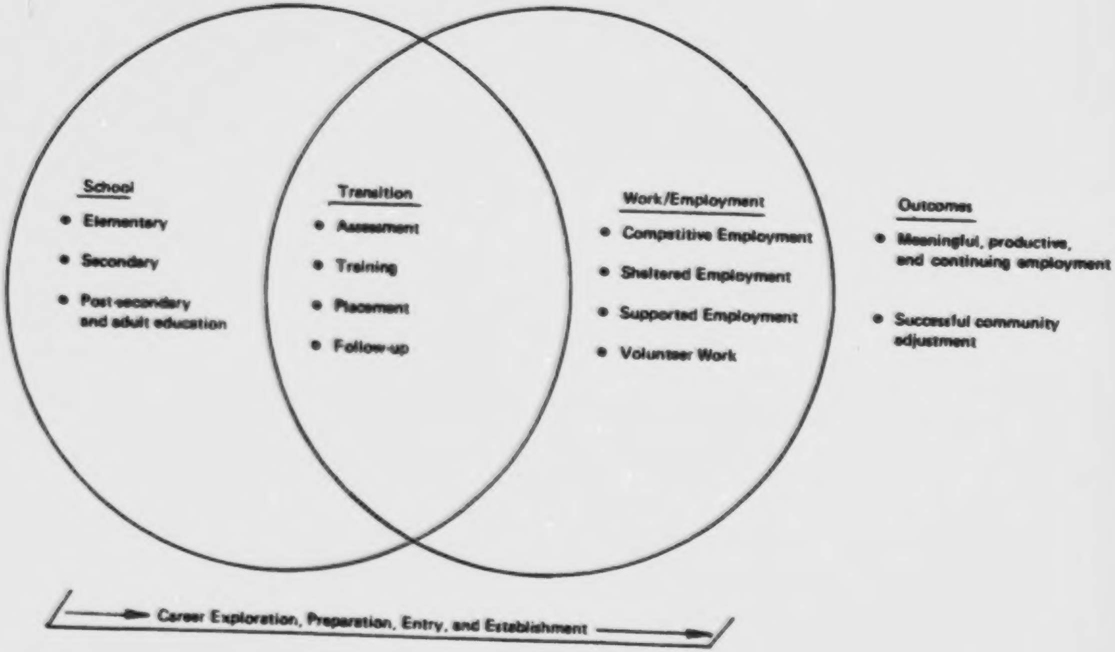
A number of the problems and difficulties encountered by handicapped youth in secondary schools are also found in the other training systems. Postsecondary technical institutes and community colleges have had difficulty identifying and assessing the needs of handicapped youth and young adults (Brown & Kayser, 1982; Repetto, 1986). Only a limited number of job training programs operated under Comprehensive Employment and Training Act (CETA) and Job Training Partnership Act (JTPA) have historically served handicapped youth (Tindall, Gugerty, & Dougherty. 1985). The programmatic efforts to serve handicapped youth in higher education (both public and private) and in education and training programs operated by business and industry have been slow to develop. Selected institutions and companies have undertaken special initiatives to serve and train handicapped individuals, but these have tended to be isolated instances rather than widespread practices and policies.

A Conceptual Framework

The problems and difficulties encountered by handicapped youth in the transition process can be examined from a conceptual perspective. At the University of Illinois, a team of faculty members are engaged in a research and evaluation program, sponsored by the U.S. Office of Special Education Programs, which is studying several issues and problems related to the second-

FIGURE I

SCHOOL-TO-WORK TRANSITION MODEL


School
Elementary
Secondary
Post-secondary and adult education
Transition
Assessment
Training
Placement
Follow-up
Work/Employment
Competitive Employment
Sheltered Employment
Supported Employment
Volunteer Work
Outcomes
Meaningful, productive, and continuing employment
Successful community adjustment
Career Exploration, Preparation, Entry, and Establishment

ary education and transition initiative (Rusch and Phelps, 1985). This group has adopted a conceptual framework for School-to-Work Transition (see Figure 1) which addresses some of the concerns raised above.

In this framework, transition is viewed as the intermediate phase of the school-to-work continuum. The activities that occur during transition are programs and services provided jointly by personnel from the school and employment sectors of the community. To be maximally effective, the assessment, training, and job placement activities that occur are jointly planned, implemented, and evaluated by special and vocational educators, guidance counselors, social workers, rehabilitation personnel, JTPA personnel, parents and advocates, and co-workers and supervisors from various businesses and industries within the community.

Additionally, the period of transition in this model can generally be viewed as longer or shorter depending upon the severity of educational and employment problems encountered by youth. That is, the amount of overlap in the circles is generally greater for more severely handicapped youth than for mildly handicapped youth. For severely handicapped and disadvantaged individuals, the period of assessment, instruction/training and placement may occur over a period of 3-5 years and necessitate extensive support over the first few years of initial employment.

Bellamy (1985), Will (1984), and Halpern (1985) have posed and debated different views of the educational, employment, and community adjustment outcomes of the transition process. In many respects, their debate has paralleled the continuing debate on vocationalism versus general or academic education that has been pursued by educators, economists, and policymakers since the early part of this century. To a large extent this debate is influenced by the nation's larger social and economic agendas. The central issue focuses on the extent to which secondary education (with its limited resources and time for influencing youth) should focus on preparing youth for employment. In this debate, a wide variety of productive and meaningful employment outcomes are viewed as feasible and appropriate for special population youth, including volunteer work and sheltered employment for those youth whose severe disabilities limit their productive capacities. The most desirable employment outcome for the majority of handicapped individuals is perceived to be full-time, continuing employment in the competitive labor market.

The concept of supported work (e.g. where severely and moderately disabled youth are employed in special work crews and enclaves) is posited as a new approach to mainstreaming disabled individuals in the workforce. This concept emphasizes the potential for positively shaping the attitudes of the American workforce and the general public regarding the abilities of a variety of youth with handicaps. However, the extent to which federal, state, or local tax dollars should be used to subsidize wages and training in the private sector is a significant intervening policy concern. As Halpern (1985) notes, it is equally important for handicapped youth to emphasize the broader outcome of successful community adjustment which encompasses meaningful employment, placement in an appropriate residential environment, and the development of social and interpersonal networks by the individual.

Overall, the outcome of competitive employment, when coupled with the capacity to live, socialize, and engage in recreational activities on an independent basis, is viewed as the most desirable outcome of the transition process.

Elementary and secondary education programs, along with other forms of employment-related education and training, contribute significantly to the foundation for effective transitional programming. Without the acquisition of effective communication, personal-social, and affective skills, there is little likelihood that vocational preparation and initial employment opportunities will be successful. Over the past three years, various educational commissions and special study groups concerned with the nation's economic development, as well as high school graduates and their employability (Committee for Economic Development, 1985; National Academy of Sciences, 1984; and the Task Force on Education and Economic Development, 1983) have called for increased attention to and resources for strengthening of basic skills of high school and college graduates. It should also be acknowledged that instruction and training that occurs during the transitional phase often reinforces the need for these basic skills and assists students in developing greater proficiencies in problem solving, writing, reading, and verbal communication, reasoning, and interpersonal skills.

The Education and Training Enterprise

The major focus of this document is understanding and critiquing the educational and training systems that are instrumental to serving youth with handicaps. Evans (1982a) suggests there are seven major systems in the U.S. which teach people about and prepare them for work. These systems include: universities and colleges, military training, public job training programs (sponsored by the Job Training Partnership Act and formerly by CETA), business and industry training, apprenticeship, public vocational education, and proprietary business, trade, and correspondence schools. Each of these systems orient and prepare individuals for work at a variety of levels in various occupational fields. However, universities and colleges have primary responsibility for training professionals, while the other six focus their educational efforts on levels of work requiring less than a baccalaureate degree. Each of these various systems for delivering work-related education and training has a long history of development which has been influenced by a number of economic, social, and political factors. Consequently, it becomes difficult to capture in a few pages the full essence of each of these major education and training enterprises. The brief overview and the chapters which follow will attempt to provide a general understanding of six of the major systems and their capacity for serving youth with handicaps.

As noted earlier, in the past two decades one of the primary goals of federal legislation and policy has been to assure that handicapped youth and adults are afforded equal access to and appropriate educational opportunities in the various educational systems. These individual, civil rights have been extended to handicapped individuals as they seek to be served by programs that receive public funds. Further, privately funded institutions and organizations have also been influenced toward serving youth with handicaps by the availability of federal student aid programs.

The goals and objectives of various education and training efforts deserve careful consideration. Preparing individuals to enter the workforce is a complex and dynamic process, which has led the providers of training programs to develop rather sophisticated program options. Within and across the various systems, the educational goals are quite varied and tend to be influenced by national concerns in educational and employment policy. Among the multifaceted, broad goals of these programs are the following: specific job training, employability skills training, improving basic skills, integrating academic and occupationally related learning, developing personal-social skills, providing career guidance and planning, developing entrepreneurial skills, reducing school dropout rates, and so on. As the various systems and programs are examined, it becomes important to consider also the comprehensive and developmental aspects of human growth and development.

Public Vocational Education

The papers by Dr. Cobb and Dr. Brown focus on the secondary and postsecondary vocational education systems, respectively. These programs focus on preparing individuals for occupations requiring less than a baccalaureate degree in several major fields--agriculture, consumer and homemaking; occupational home economics; marketing; business and office; industrial arts; technical, trade, and industrial; and health occupations. The U.S. Office of Vocational and Adult Education has identified more than 150 occupational programs which are included within these major fields, including new and emerging areas such as word processing, solar energy technician, floriculture, and robotics. Most of the occupations included in vocational education are not associated with shops and blue collar occupations, as many people have perceived over the years.

Approximately 17 million individuals (6.5 million of whom are adults) are enrolled in these programs at community colleges, technical institutes, area vocational centers, high schools, and some middle/junior high schools. At the postsecondary level, more than 2000 technical institutes and community colleges offer vocational programs in five or more areas; while more than 5000 high schools offer five or more program areas. The program fields with the largest enrollments include consumer and homemaking education (18.2%), business and office (32.1%), and trade and industrial education (18.8%). (Office of Adult and Vocational Education, June 1984). Overall, about one-third of these students receive "occupationally" specific instruction. The other two-thirds receive what is described as nonoccupational instruction, i.e., general work orientation, industrial arts, consumer and homemaking, and general business. At the secondary level, about 30% of the instruction is occupationally specific, while at the postsecondary level 90% of the instruction is occupationally specific (National Institute of Education, 1980).

Contrary to popular belief, Federal funding for the programs, which has been available since 1917, constitutes only about 8% of the total expenditures. State and local funds provide the major financial base for the programs despite the fact that federal legislation in the last two decades has had a major influence on the planning, operation, and evaluation of the programs at both the state and local levels.

Regarding students and enrollment patterns in vocational education, Evans (1982b) notes that:

> It has long been the case that as unemployment rates increase, postsecondary vocational enrollments (of both full- and part- time students) also go up. Most economists regard this as highly desirable, since foregone earnings and instructional costs tend to decrease as economic activity diminishes. Secondary school vocational enrollments are not similarly tied to the level of economic activity. Instead, until the 1960s, there tended to be a fixed percentage (traditionally 25%) of the total school graduates in vocational education. During the 1970s, however, this percentage more than doubled. NIE (National Institute of Education) claims that during 1978, some 70 percent of secondary school students were enrolled in one or more vocational courses (NIE 1980, p. VI-3). This seems too high, probably because they forgot junior high schools are also secondary schools. Nevertheless, probably more than 70 percent of the current high school graduates will have had one or more vocational courses. (p. 257)

Clearly, vocational education programs at both the secondary and postsecondary level offer valuable and comprehensive learning experiences for handicapped youth. In 1984, the Congress passed the Carl D. Perkins Vocational Education Act which extended and strengthened the provisions for serving handicapped individuals, which first appeared in the Vocational Education Act of 1963. The papers by Cobb and Brown examine the extent to which these opportunities are available, as well as the overall quality of the programs and support services being provided to handicapped youth.

Public Job Training Programs

Since the 1930s the Federal government has operated programs such as the Civilian Conservation Corps, CETA (Comprehensive Employment and Training Act), and the Job Corps designed to provide training and, on occasion, public service employment for individuals who are unemployed, poor, and disadvantaged. Dr. Tindall's paper examines the two major federally sponsored programs that are currently in place--the Job Training Partnership Act (JTPA) and the Job Corps.

Mangum (1982) suggests that the JTPA programs are the only publicly supported programs designed to give economically disadvantaged youth (including those who are handicapped) a second chance, especially including those who are already in the labor market but floundering (i.e., unemployed or underemployed). CETA was enacted in 1973 and took the place of the Manpower Development and Training Act of 1962 and the Economic Opportunity Act of 1964. Designed to provide a variety of public employment and training opportunities, CETA was operated through a national network of local prime sponsors attached to local governmental units. During periods of high unemployment, the Congress used CETA extensively to create public service employment opportunities thereby reducing high cyclical unemployment levels.

In 1983, the Job Training Partnership Act replaced CETA and provided a major redirection for public job training programs. The new Act extended the provision for the Job Corps, placed major emphasis on training rather than public service employment, and strengthened provisions for private sector participation in the program. The total funding for JTPA in 1985 was 3.2 billion, far exceeding the federal funding level for vocational education.

Under JTPA, seventy percent of the funds which are distributed by any Governor to local service delivery areas (SDAs) must be used for training for jobs in the private sector. During the first year, SDAs were established by local units of government with a population base of at least 200,000. Each SDA has a Private Industry Council (PIC) which shares overall responsibility for the program with local elected officials. A majority of the private industry councils is composed of local business leaders, along with representatives from education, organized labor, rehabilitation, community-based organizations, economic development agencies, and the local employment service.

Each Governor appoints a State Job Training Coordinating Council whose responsibilities include reviewing and approving the two-year job training plans submitted by each SDA. Of the funds received by the SDAs, 40 percent are to be spent on youth ages 14-21. Up to ten percent of the participants in all youth and adult programs can qualify regardless of their income if they face other employment barriers (e.g. handicapped, displaced homemaker, older workers, etc.).

The National Alliance of Business completed a major survey of the 596 SDAs nationwide in 1983 to gather baseline information about the programs being initiated under JTPA. Among the significant findings were these:

- Almost 11,000 business volunteers are serving on Private Industry Councils with nearly 75 percent participating actively in determining the types of training programs, the occupations for which training is to be provided, the training providers, and the criteria for establishing training programs.

- High school dropouts and welfare recipients were the two groups most frequently identified as target audiences for the programs and services. In-school youth, minorities, and handicapped individuals were also targeted to be served by more than two-thirds of the SDAs.

- More than 90 percent of the PICs and SDAs were funding programs with the local public school system to serve disadvantaged youth. Private employers, particularly small businesses, also were contracted to provide training in 80 percent of the SDAs. Private secondary and postsecondary schools, community based organizations, and large businesses were each involved in providing training in slightly more than half of the SDAs. (National Alliance of Business, 1984, pp. ii-iii).

Dr. Tindall's paper outlines some extremely valuable strategies for assuring that handicapped youth are served effectively by the local JTPA programs. Tindall argues convincingly that special and vocational educators need to take an active advocacy role in working with PICs and SDAs to assure that handicapped youth are included in the planning process, as well as the programs and services.

The Job Corps, a federally administered program under the JTPA, has been in operation for nearly twenty years. Residential and nonresidential centers enroll severely, economically, disadvantaged youth who can profit from intense and lengthy training experiences, which, in most cases, are provided some distance from their depressed home communities. As Dr. Tindall notes in his paper, the Corps enrolls only the most economically and educationally disadvantaged youth for an average stay of eight months. However, 75 percent are successful in their subsequent efforts to obtain a job or return to school. The high cost of the program ($13,000-$15,000 annually per training slot) makes the program a continuing center of debate in Congressional appropriation hearings. Most reports and evaluations describing the Job Corps do not include mention of handicapped youth among those being served.

Business and Industry Training

The American Society for Training and Development (1979) estimates that private and public employers in the U.S. spent in 1978 between $30-40 billion on employee development, not including the salaries and wages of trainees. A recent report from the Carnegie Foundation entitled Corporate Classrooms: The Learning Business, noted that education and training within large private sector corporations has become a booming industry (Eurich 1985). The paper prepared by Dr. Shaffer addresses the expanding investment that employers are making in the education and training of their employees, and the nature of participation by handicapped employees in such training.

Given the complexity and diversity of American business, it is virtually impossible to summarize how education and training programs are organized and handled. Policies, practices, and clientele for training programs all are highly varied and generally dependent upon such variables as the nature of the business, personnel organization, and management's philosophy regarding training. There are a number of case studies of training programs and educational initiatives developed by specific companies (Dean, 1980; Fronzaglia 1982) that are probably the most valuable sources of information. Understandably, many firms view the specifics of their training programs as trade secrets which provide them with a competitive edge in the marketplace. Hence, "getting inside" the training philosophies, procedures, and techniques used by business and industry is not a simple task for educators and advocates who are interested in determining how these programs might be more responsive to handicapped employees.

A recent national survey of employee training, conducted by the Opinion Research Corporation and the American Society for Training and Development, provides some insights into the nature of training programs in larger (minimum of 250 employees) companies in the U.S. The telephone survey of training directors from a stratified random sample of 756 companies produced several important findings:

- Approximately 80 percent of the companies earmark monies for training each year, and generally view training as an integral part of the firm's human resource and strategic planning.
- On average, the training directors indicated that 38 percent of their work forces participated in some form of training during 1985. Those firms that had not met their 1985 financial goals anticipated reductions in training budgets for the coming year.
- The average company subsidizes slightly over 70 percent of the tuition costs for courses that an employee voluntarily attends at a school or university.

- The primary objectives for training programs focused on: Helping employees perform their present jobs well (81% cited as most important), Orientation of new employees (78%), and Keeping employees informed of technical and procedural changes in the organization (64%).

- More than 80 percent of the firms indicated the topics of primary focus in their training programs included: employee orientation (86% offered), supervisory skills (85%), and management development (80%). Other frequently mentioned topics included: computer use skills, safety procedures, professional/technical skills, communication skills, and sales skills. While remedial education was included in the survey as a potential training topic, only 15 percent of the firms were providing it. (American Society for Training and Development, 1986)

Eurich's (1985) study of education and training in major corporations suggests that education has become a critical resource for effective competition in the marketplace. Corporate-sponsored training programs are generally run on an in-house basis and are designed generally to provide: (a) compensatory education on the basic, as well as advanced professional level, (b) company-oriented education which enables individuals to perform their work in a more productive fashion, and (c) enhanced employee recruitment and benefits.

While focusing on technical skills training specifically, Dr. Shaffer's paper offers some important insights into the complex nature of high-technology production employment, the training programs in such companies, and considerations for employing and training handicapped youth therein.

Proprietary Schools

While significantly fewer in number than programs found in the other education and training systems, private trade, technical, and business schools represent an important dimension of the education for employment enterprise. According to the National Center for Education Statistics, in 1978 there were slightly more than a million students enrolled in 6800 proprietary schools throughout the U.S. More specifically, these were noncollegiate, postsecondary schools offering occupational preparation programs. Only a small percentage of the schools were reported as nonprofit entities.

Among the 6800 proprietary schools, three major types of schools were cited: 2100 cosmetology/barber schools, 1200 business/office schools, and 1100 flight schools. There also were a large number of nonprofit schools sponsored by hospital organizations (approximately 750) and approximately 700 private trade schools.

Largely because of their profitmaking orientation, private vocational schools have historically been recognized for their strong affiliation with occupationally-specific training. As Cann (1982) notes, these schools are extremely sensitive and responsive to changes in the labor market. The job placement rates for their graduates are extremely important to their student recruitment efforts. The training focuses heavily upon the skills and knowledges that are needed directly in the occupation. Basic skills (such as mathematics, problem solving, and technical reading) are taught in the context of the job or occupation being learned. Many of the courses provided by private schools, such as tool and die design, bartending, and medical office management, have unique appeal because they are not offered in schools and community colleges. The special "relevancy" and specialized training that proprietary schools provide is generally sought out by people who have become disenchanted with their present job or who have not done well in public schools where occupationally-relevant learning experiences have been limited.

As proprietary schools have grown in prominence and number, professional organizations and accrediting agencies have also been formed on both national and state levels. Three major accrediting bodies have been established and operate national offices in Washington, D.C. on behalf of trade and technical schools, business schools, and the cosmetology related occupations. Accreditation by these organizations or state accrediting agencies enables schools to participate in federal and state student financial aid programs.

The organization of private vocational schools is highly varied, much like the training programs in business and industry. Generally, the schools are small in size and facilities. Wilms (1974) studied twenty- nine private schools ranging in size from 14 to 2300 students. While a few schools are operated as sole proprietorships or partnerships, most have been incorporated. Several major corporations, such as Arthur Anderson, ITT, Bell and Howell, and Control Data Corporation, operate schools that enroll both their employees and others interested in specialized training programs.

The paper by Mr. McCrae, who directs the Disability Services Division at Control Data Corporation (CDC), describes the various schools and programs that CDC has developed to serve handicapped and disadvantaged youth specifically. Following their field test development with special needs youth, most of CDC's computer-based programs and materials are sold to vocational rehabilitation and job training providers, as well as public educational institutions. The use of computer-based training for residential, homebound, and school-based instruction provides a fascinating look into future alternative means for providing education to mildly and severely handicapped youth.

Higher Education

Higher education in the U.S. is an enterprise of vast scope and diversity (Study Group on the Conditions of Excellence in American Higher Education, 1984). The Study Group, commissioned by the Secretary of Education in 1983, describes the current dimensions of American higher education:

- Our colleges and universities enroll more than 12 million students, employ nearly 2 million workers, and account for 3 percent of the Gross National Product.
- More than half of all undergraduates are women and one out of every six is a member of a minority group.
- Two out of every five students are over the age of 25, and fewer than three in five are attending college full time (p. 5).

Over the past two decades undergraduate education has served a significantly larger number of students. From 1970 to 1983, higher education enrollment in the U.S. grew from 8.5 million to 12.4 million, an increase of 45 percent. (Plisko & Stern, 1985) For a growing number of occupations, the college degree has become the basic credential for entry. As employers have sought to hire better-educated individuals, higher education has become an integral part of the nation's economic development resources.

Colleges and universities nationwide provide a vast array of undergraduate, graduate, professional, and continuing education programs that prepare graduates for employment or assist part-time students in enhancing their current employability. While enrollments by female and minority students appear to be growing rapidly in higher education, the picture is less clear for handicapped students. As Dr. Floyd's paper notes, most institutions have initiated efforts to recruit and admit handicapped students, but a variety of programmatic barriers still exist. National data are not currently available to describe the extent to which handicapped youth and adults are successfully participating in higher education.

Perspectives and Key Issues

A variety of issues and perspectives deserve serious consideration when the multiple education and training systems are examined individually and collectively. Each of the papers (Chapters) that follow is structured somewhat differently, but each describes the students being served (handicapped and nonhandicapped), goals and objectives of the programs, historical perspectives and contemporary legislation or policies that govern the program, breadth and depth of training curricula, and outcomes that are realized by students. Additionally, the authors were asked to examine the extent and nature of collaboration occurring between the training system they were examining and others. Also of major importance, the chapters outline several recommendations related to: needed research and evaluation studies, new or revised public policies to strengthen the programs, and needed improvements in the pre-professional and in-service education of teachers, counselors, and administrators to enable them to serve handicapped individuals more effectively.

Special Perspectives

When examining the education and training systems on a general level, it becomes quite clear that most of them have encountered serious difficulty in attempting to integrate and serve handicapped youth. In fact, some of them have largely neglected efforts to include persons with handicaps. In many instances, vocational teachers, college instructors, trainers in business schools, and other educators in these settings have not received any special training themselves so they might better understand how to assist a handicapped youth in entering and successfully progressing through their course or program. Obviously, most of these education and training systems have evolved over a period of fifty or more years, and have only been asked fairly recently to address the concerns of handicapped youth and handicapped employees.

While these systems and the programs described herein have not faired well with mildly handicapped youth, efforts to serve moderately and severely handicapped youth in programs such as vocational education and public job training have been virtually nonexistent. Dr. Vogelsberg's paper was solicited for the forum with the intent of more closely examining the needs of this population. He outlines and discusses several issues related to the employment of severely handicapped individuals, such as the use of federal funds to subsidize employment and on-the-job training programs. His research and development program in Vermont provides strong evidence that severely handicapped persons can be effectively trained and employed with the collaborative assistance of local business.

In addition, the education and training efforts of other nations provides an important perspective. Dr. Reuben's paper highlights the elements of employment-related training programs in West Germany and Sweden, and the recent attempts by these countries to include new provisions for serving handicapped youth. The efforts of these industrialized nations of Western Europe provide some valuable insights regarding effective policies for both training and employment.

Critical Questions

The education and training enterprise, when viewed broadly, presents several significant challenges for educators, policymakers, and others concerned with handicapped youth. With more than twenty years having passed since the beginning of the civil rights movement in the U.S., one would think the major employment-related education and training systems would be readily accessible to handicapped youth. The chapters which follow outline the extent to which this hypothesis is accurate. Further, the chapters raise important questions and challenges for the reader. Among the most critical questions and issues are the following:

- To what extent do handicapped youth have access, at present, to the wide array of employment-related education and training opportunities in our nation?
- Do the education and training opportunities provided to handicapped youth make important and valuable contributions to their employability, as well as the quality of their adult lives?
- To what degree do the education and training systems view programs and services for individuals with handicaps as an integral part of the system?
- What levels of collaboration and cooperation exist among the various education and training systems that allow handicapped youth to fully develop employability skills and knowledge?
- In what ways must the various education and training systems be strengthened to address more effectively the problems of youth with handicaps?

The primary goal of this volume is to provide insights and strategies for obtaining favorable responses to these questions at a variety of levels--nationally, statewide, and locally.

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Chapter 2

Secondary Vocational Education

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Secondary Vocational Education

Vocational education has historically been perceived to have four fundamental goals (Evans & Herr, 1978): (a) to meet society's need for effective workers; (b) to increase the opportunities for individuals in the world of work; (c) to facilitate the learning of general education by pointing out its relevance in work; and (d) to aid workers in improving working conditions. Although the levels of intensity may vary, these goals hold relevance for both educational and employment training environments, and at both secondary and postsecondary levels of publicly supported vocational education.

Within the last two decades the propriety of these goals for various groups of individuals with special needs has become increasingly apparent. This paper examines one segment of the vocational education enterprise--secondary-level programming for mildly handicapped youth and young adults. "Mildly handicapped" as a term can be functionally defined as describing any student identified for special education services who, with reasonable support and accommodation, can be successfully placed in a regular vocational education program alongside nonhandicapped students. The general perspective of this paper encompasses an overview of the typical system, current federal legislation affecting service delivery; programming approaches, participation rates, and outcomes to be expected; cooperative linkages with other systems; and some implications and recommendations that appear reasonable given the extant knowledge base, and the political and demographic climate of the mid-1980's.

The Current Enterprise

In the past twenty years, enrollment in secondary vocational education has remained relatively stable in its proportion to the overall secondary level enrollment. Lee (1972-73) reported the 1970-71 enrollment in vocational education to be 26.3%; that figure remained virtually the same (27%) for the 1982 graduating class (National Center for Education Statistics, 1983). Typically, one out of four students is enrolled in a vocational education program while in high school.

This same time period has seen significant changes in the structure of secondary vocational education generally, such as the growth of program areas in Marketing and Distributive Education, Health Occupations, Cooperative Vocational Education, and Work Study programs. Perhaps the most dramatic changes have occurred in the environments in which secondary vocational education is offered. From an almost exclusive reliance upon comprehensive high schools prior to 1960, the educational system has expanded to include both area (or regional) vocational centers, and four-year vocational high schools. Each of these three major environments will be described in greater depth.

Comprehensive High School

Of the three training environments, comprehensive high schools (CHS), make up the greatest percentage. The National Center for Education Statistics (NCES, 1980) reported that approximately 15,500 comprehensive high schools at the secondary level comprised about 90% of the total number of schools operating vocational education programs. Many of these schools, however, offer only a limited array of vocational courses. The U.S. Department of Health, Education and Welfare (1978) reported that only 4,514 CHS's offered five or more vocational programs. In the CHS, the overwhelming majority of enrollment has traditionally been in the nonoccupationally specific areas of Industrial Arts and Home Economics Education, and in the occupationally specific programs of Trades and Industrial Education, Agricultural Education, and Office Occupations (Evans & Herr, 1978).

The comprehensive high school environment for secondary vocational education offers some distinct advantages (Evans, 1982). First, students can integrate their vocational preparation much more easily within the total school curriculum, including extracurricular activities. Students may also make less of a commitment to an entire vocational sequence yet still enjoy the benefits of a limited selection of coursework of interest. For example, NCES (1983) reported that 75% of all 1982 high school graduates had taken at least one course that could be described as occupational, and only five percent had completed their entire high school sequence without benefit of any vocational courses. Additionally, vocational programs appear less costly to operate in CHS's (American Institute for Research, 1967), and there is some evidence to indicate that the dropout rate for CHS's may be lower than those in separate vocational schools (Evans, 1982).

There are, however, disadvantages to vocational instruction in CHS's as well. Frequently, the number of program options and the vocational preparation of instructional personnel are less extensive than in programs operated in separate vocational facilities. Instructional equipment may be less technologically up-to-date in CHS's, and cooperative education and placement rates frequently do not equal those of separate facilities (Sewell, 1983; Benson, 1982).

Area Vocational Centers

The Vocational Education Act of 1963 contains a significant initiative that supported the development of secondary regional or area vocational-technical education centers. The Act provided federal incentive monies to the states for the construction of vocational centers. The states responded with different models of separate vocational centers, with the two-year Area Vocational Center (AVC) being the most prominent. Typically, this separate facility serves a large single school district or a consortium of smaller ones, most often on a tuition basis. Students desiring a vocational education course of study that is not available at their comprehensive high school are transported for half of the day to the vocational center to receive technical training. Generally, academic requirements are completed at their home school during the other half of the school day.

Recent and well-controlled effectiveness studies comparing separate two-year vocational facilities with comprehensive high schools are virtually nonexistent. It is generally believed, though, that separate vocational facilities provide a wider range of program alternatives than comprehensive high schools, and frequently employ teachers with more sophisticated and more recent technical training in their subject areas (Kirst, 1979). Often, AVC's have equipment that is more up-to-date, are able to react more quickly to local labor market demands, and have more active business and industry participation. On the negative side, however, Evans and Herr (1978) reported that separate vocational centers "have higher costs, higher dropout rates, and seem to promote socioeconomic segregation" (p. 219). Another major problem with AVC's is the time it takes to bus students from sending schools to the centers, especially in rural areas. A recent Vermont State Senate Education Committee Report (1984) stated:

> Long daily bus rides to and from the vocational centers are a major deterrent to equality of opportunity. Some students literally spend more time each day riding the bus than they do receiving instruction at the vocational center.... time spent on the bus or at the vocational center also limits the time available for instruction at the student's home school. One center's study found that bus riding students spent twice as much time on the bus as in Mathematics class. (p. 2)

Enrollment stability at area vocational centers may also become problematic, especially during periods of low enrollments, such as in the mid-1980s. Many centers find that the sending school guidance staff seem reluctant to promote attendance at regional centers when their own school's enrollments are declining.

Vocational High Schools

Vocational high schools represent the third major option for public secondary vocational education. They are relatively few in number (numbering 217 in 1978), and are more likely to be located in metropolitan centers than either other alternative.

Vocational high schools offer a four-year curriculum in which vocational education is the only option. They do provide coursework in mathematics, English, science, and social studies in order that their students fulfill state and/or local requirements for graduation. However, most of these courses are functionally related to the dominant vocational education curricula.

While vocational high schools seem to be free from many of the problems encountered by area vocational centers, they are susceptible to one major disadvantage--recruitment. Vocational high schools are in direct competition with comprehensive high schools, and they frequently encounter extreme difficulty in encouraging eighth graders to enroll in their programs. There would appear to be several reasons for this. First, eighth graders and/or their parents may well be less inclined to branch into a separate curriculum in a separate facility so early in a student's secondary schooling. Second, in times of depressed secondary enrollment, local school districts are hesitant to encourage enrollment in separate vocational schools which would further reduce their own enrollment, and consequently, further reduce their state aid. Finally, the social isolation, evident in two-year regional vocational centers, can be even more problematic in four-year vocational high schools.

Current Governing Statutes

Secondary vocational education, like other aspects of public secondary education, has always been dependent largely upon a combination of state and local fiscal effort to support its programming, and upon state statutes and policies to define it. Consistent with other elements of public schooling, federal legislation and regulations have greatly impacted upon the evolution of secondary vocational programming, although the average federal contribution to that effort has been typically small (between 8% and 12% of the total federal/state/local expenditures).

Currently, vocational education is operating under the third set of amendments to the Vocational Education Act of 1963. This legislation, the Carl D. Perkins Vocational Education Act of 1984 (P. L. 98-524), expands a number of initiatives that have evolved through the past two decades, and includes several new ones. Each will be discussed briefly below.

Setaside

Since the 1968 Amendments, states have been required to document that 10% of their basic grant from the federal vocational education legislation was used to provide programs and services that served students with handicaps. Under P. L. 98-524, 100% of this setaside must be spent by local schools and community colleges (none at the state administrative or university teacher training levels). Further, none of the setaside can be used for the purchase of equipment or tools, unless they are specifically prescribed in the handicapped student's Individual Education Program (IEP).

Matching

The 10% setaside described above must also be equally matched by a combination of state and local dollars. The actual language of the law states that no other federal dollars (such as funds from the Job Training Partnership Act or the Education of the Handicapped Act) can be used by states to comprise the match. It appears that several states have begun to use their state special education funds at the secondary/high school level.

Excess Cost

A final restriction in the documentation and use of federal setaside and matching dollars is the excess cost provision. Beginning in 1976, both the setaside and the matching dollars could be used to defray only the excess costs (above the average per pupil costs) associated with providing special programs and services to handicapped students in regular or separate vocational education programs. The rationale for this provision was that because its purpose was to promote the availability of a pool of dollars for special programs and services for handicapped students, state and local education agencies ought to assume the average fiscal responsibility for these students just as they do for other students. Although regulatory interpretation of this provision has varied somewhat, under current law, this excess cost provision is still in effect.

Youth-Find

P. L. 98-524 prescribes that local education agencies receiving federal vocational education dollars must assure the state through their local application for funding that every handicapped student in their administrative jurisdiction will be informed of secondary vocational education opportunities available to him/her, as well as provided access to them. These students and their parents must be informed of program options and admission requirements prior to their entrance into the ninth grade.

Section 204(c)

In addition to the "youth-find" provision, P. L. 98-524 contains several new service-oriented requirements. Because some of these elements may be subject to local or state regulatory interpretation and final regulations may simply mirror the language in the Act, the statutory language is given here from the Conference Report, October 2, 1984:

> (c) Each [handicapped] student who enrolls in [a] vocational education program . . . shall receive:
>
> (1) assessment of the interests, abilities, and special needs of such student with respect to completing successfully the vocational education program;
>
> (2) special services, including adaptation of curriculum, instruction, equipment, and facilities, designed to meet the needs described in clause (1);
>
> (3) guidance, counseling, and career development activities conducted by professionally trained counselors who are associated with the provision of such special services; and
>
> (4) counseling services designed to facilitate the transition from school to post-school employment and career opportunities. (Section 204(c), p. 22)

Since the Act has been in place only a short period of time, it is far too early to assess the incremental impact of these provisions over and above the fiscal and programmatic provisions in earlier legislation. However, it does appear safe to conclude that at least for the remainder of the 1980s, adequate consideration for the needs of handicapped students in secondary vocational education will be firmly grounded in federal and state statues.

Alternative Programming Approaches

Twenty years ago Barlow (1965) wrote: "Education in general has failed to help the disadvantaged youth, and vocational education has largely eliminated the group by imposing selection devices. Now the vocational educators of the nation, well aware that these students want to, or should, go to work, are attempting to meet the challenge" (p. 13). Barlow clearly interpreted "disadvantaged youth" to include handicapped students as well, and the last two decades have proven his assertion true. With the assistance of federal initiatives and fiscal policies in successive amendments to the 1963 Vocational Education Act, handicapped enrollment increases in secondary vocational education have far outstripped those of nonhandicapped students (National Advisory Council on Vocational Education, 1983).

A variety of approaches to serving handicapped students in secondary vocational education have emerged to meet these enrollment demands. Most of these approaches can be categorized into two models of service delivery: the separate vocational special education program and the integrated vocational education program. Both of these models are characterized by a similar approach to developing, implementing, and evaluating services for students with handicaps through the IEP process. The models differ in the degree to which students have contact with nonhandicapped peers, the amount of collaboration which occurs between vocational instructors and special education personnel, and the curriculum objectives.

Separate Vocational Special Education Programs

This approach to providing vocational preparation was designed for students with more severe handicaps who require intensive individualized instruction in order to acquire functional academic and prevocational skills. The curriculum expectations differ from regular vocational programs in that the focus is on the acquisition of skills that are work-related rather than occupationally-specific. This is based on the notion that certain prevocational skills have a generalized value across a variety of work environments and that these skills must be mastered prior to receiving occupationally-specific training. In addition, students are often provided with a series of on-site work experiences to familiarize them with the expectations in the work force and the knowledge of a range of potential occupations. These work experiences vary in frequency, duration, and remuneration depending on the availability of resources. Programs of this nature generally assume that additional vocational training will be provided following graduation or exit from high school, which has facilitated the involvement of adult services agencies, such as vocational rehabilitation, in the planning and delivery of support services at the secondary level.

The personnel responsible for providing instruction usually have a background in special education and limited training and experience in the content of vocational curricula. The teachers often have little opportunity to interact with their colleagues in the regular vocational education programs and the students likewise have minimal contact with their nonhandicapped peers.

Some area vocational centers and high schools have established occupationally-specific programs (in such fields as custodial or food services) for certain moderately handicapped youth. While these programs limit the opportunities for mainstreaming, they often enhance the employability of handicapped students in occupations where significant job opportunities exist.

Integrated Vocational Education Programs

Often, individually designed instruction is delivered both in resource room settings and through adaptation of equipment and curriculum in regular vocational classrooms. The vocational education resource teacher is generally experienced in both special and vocational education and collaborates with vocational instructors in the development of materials and strategies for teaching students with handicaps. The vocational resource teacher can assist in such activities as developing individualized curriculum packets for teaching basic safety rules, organizing a peer tutoring system, designing an individual performance contract, or participating in team-teaching activities with the vocational instructor. Instruction which is delivered in the resource room setting is usually in academic content areas, but taught within the context of the vocational curriculum. For example, a student might develop competence in fractions and decimals by learning how to measure and read a barrel micrometer. Thus, the skills involved directly relate to those required in a regular vocational curriculum.

The amount of time spent in the resource room depends on the individual needs of the student, but rarely does the time in the resource room exceed the amount of time spent in the regular classroom.

Handicapped students who attend regular vocational classes do so with nonhandicapped peers. Because they are considered vocational education students, they have the opportunity to participate in programs such as cooperative education and youth organizations more readily than do handicapped students in separate vocational special education programs. These additional activities allow for even greater interaction with nonhandicapped peers in an environment outside of the formal classroom.

Interagency Linkages

Interagency collaboration efforts have become increasingly important in the delivery of coordinated and comprehensive services to youth with handicaps. These efforts, initiated at the national level, include policy directives as well as legislative mandates.

The most recent interest in interagency collaboration began in October, 1977 when the U. S. Commissioner of Education, the Commissioner of the Rehabilitation Services Administration, and the Department of Health, Education and Welfare issued three joint memoranda concerning education and rehabilitation services for handicapped individuals. Through these memorandums, chief state school officials and state directors of vocational rehabilitation agencies were encouraged to (a) examine collaborative efforts between education and vocational rehabilitation agencies (Federal Register, October 3, 1977); (b) develop formal cooperative agreements among special education, vocational rehabilitation and vocational education (U.S. Department of Health, Education and Welfare, 1978b, November 21, 1978); and, (c) respond to the need for providing all persons with comprehensive vocational education services (Federal Register, September 25, 1977).

Following these memorandums, many states engaged in activities to facilitate collaboration between special education, vocational rehabilitation, and vocational education agencies. One of the most frequently used mechanisms for developing collaborative efforts was the state-level interagency agreement. In a 1981 study, Albright, Hasazi, Phelps, and Hull sought to determine the characteristics of state-level agreements. Thirty-seven states reported that they had or were in the process of developing interagency agreements. The most frequently cited areas of collaboration in these agreements included in-service training to professionals from the three agencies, cooperative development of IEPs and IWRPs, cooperative funding for vocational assessment services for high school-age students, and policy statements for facilitating the involvement of vocational educators and vocational rehabilitation professionals on special education staffing teams.

Recently, the federal legislation in vocational and special education has formulated the necessity for collaboration among the three agencies. For example, a provision of P. L. 98-524 will greatly enhance the unification of school-age youth with handicaps in need of vocational education. This provision [Section 204(b)] requires that all handicapped students and their parents be informed of the opportunities available in vocational education (along with entry-level requirements) no later than the beginning of the ninth grade. Given this new requirement, it is likely that increased planning activities to ensure that all students who are interested and in need of vocational education programs and related services are identified. In addition, another section requires that special and vocational educators coordinate planning efforts for handicapped individuals in vocational education [Section 204(a)(3)(B)]. This provision will encourage the joint development of IEPs by vocational and special educators, which will, in turn, facilitate greater knowledge on the part of the professionals of the services offered by each agency.

Another issue of importance in the Perkins Act, as well as in P. L. 98-199 (Education of the Handicapped Amendments of 1983) is the transition of handicapped students from school to the adult world. The Perkins Act requires that counseling services be available to handicapped students to assist in the transition from school to post-school employment and career opportunities [Section 204(c)(4)]. P. L. 98-199 requires that state education agencies collect annual information on the numbers of handicapped children and youth who exit school and the services which will be needed for the following year [Section 618(b)(3)]. Both of these provisions will require collaboration among vocational and special education and vocational rehabilitation in order to ensure that the mandates are adequately addressed.

Finally, another potential partner in collaboration activities is employment and training agencies. The Job Training Partnership Act (JTPA) offers a variety of services and programs that could assist in the vocational training and placement of youths with handicaps. Recognizing the importance of the linkage between the JPTA legislation and other vocational legislation, Congress included a provision in the Perkins Act for coordinating services and planning at the state level. At the local level, the Act even contains a provision wherein community-based organizations, such as those which are mainly supported by JTPA funding, to be the direct recipients of federal vocational education dollars. This linkage will provide greater access to business and industry and additional vocational education and training opportunities for handicapped youth both during and following high school.

Outcomes

Outcomes of secondary vocational education programming for youths with handicaps are extremely difficult to measure and discuss. Part of the reason is that they are inextricably related to purposes of programming, which are in turn often unclear or highly variable. Measuring outcomes is also confounded by the complexities of both the special education and vocational education systems. Finally, assuming a satisfactory resolution of the problems above, results or outcomes of programming must necessarily be interpreted within the context of a changing ideology. Thus, a separate program for mildly retarded students in a regional vocational center may, in a given year, have a strong mandate for operation and be highly successful with its own curriculum goals. However, if, two years later, the mandate dissolves in favor of regular vocational placements or community-based training, the interpretation of its outcomes will change regardless of curricular achievements.

Nonetheless, some discussion is warranted, and some framework is needed to guide the discussion. The following narrative will present some results of vocational special education outcomes studies, and integrate them with the broader educational effectiveness literature.

Perhaps the most thorough and, indeed, the only current review of research on outcomes of vocational education programming for students with mild handicapping conditions was conducted by Flynn (1982a). His major findings and recommendations are summarized below:

- "Efforts aimed at improving access . . . should not be allowed to obscure that of effectiveness" (p. 59). Parents, advocates and professionals cannot assume efficacy of traditional vocational programs for mildly handicapped students. Indeed, local indicators of quality may not apply when matched against individual needs, prior training background, or transitional service availability.

- "The role of secondary vocational education needs a new orientation . . . emphasizing generic skills relevant to a broad class of jobs" (p. 59). This conclusion holds relevance for nonhandicapped populations as well (Flynn, 1982b; Grasso & Shea, 1979) and appears most often paired with a recommendation for more emphasis for occupationally-specific training at the postsecondary level.

- "In order to obtain strong outcomes it is essential to provide a high level of structure, intensity, and follow-up" (p. 59). Flynn cites results from several alternative programs to support this notion; some data exists that this holds true for work experience programs as well (Stern, 1984). Indeed, this description is consistent with much of the effective schools research.

These findings reflect reviews of published research in the vocational special education area. Some direct research was also conducted as a part of the NIE study of vocational education in the early 1980s, and in a longitudinal study of the effects of P.L. 94-142. Virtually every research report (i.e., Beuke, 1981; Nacson & Kelly, 1980; Wright, Cooperstein, Renneker, & Padilla, 1982) concluded that gains have been made in access and equity for handicapped individuals in regular vocational education programs. However, Nacson (1982) highlighted an ongoing concern of which ramifications are likely to extend well through the 1980s:

> For example, when minimally disadvantaged and handicapped students are prevented from enrolling in regular vocational programs because of state and local requirements to participate in non-credit remedial basic skills, their vocational elective options have been constrained. Such situations are most prevalent when the vocational programs of interest are available at designated sites other than the students' home school and special travel and scheduling arrangements have to be made. (p. 36)

This quotation raises again the issues associated with the time, expense, social isolation and communication of providing vocational education in regional high schools rather than in comprehensive high schools. Clearly, decreases in academic learning time, the most consistent predictor of school achievement, can come into play in a regional high school model. The summary of Leinhardt and Pallay (1982), may also be germane:

> The most significant point of this review is that setting is not an important determinant of child or program success. When effective practices are used, then the mildly handicapped can benefit. Therefore, educators should focus less on debates of setting, and more on issues of finding and implementing sound educational processes. For moral and social reasons, the least restrictive environment is preferable. (p. 574)

Although this summary was contrasting special class versus regular educational class alternatives, the substance of their review would hold for the special school versus separate vocational school dichotomy as well.

Implications and Recommendations

This manuscript opened with a list of the traditional goals of vocational education. More recently a differing set of goals for vocational education was proposed by the National Commission on Secondary Vocational Education (1984): (a) personal skills and attitudes; (b) communication and computational skills and technological literacy; (c) employability skills; (d) broad and specific occupational skills and knowledge; and, (e) foundations for career planning and lifelong learning.

It is interesting that the "vocationalism" in the traditional goals seems to have been replaced by a more integrative orientation. Perhaps this reflects the initiatives for handicapped and disadvantaged students over the past years. Perhaps, instead, it is merely the Commission's political reaction to the "Excellence" milieu surrounding its development.

Regardless, substantial progress has been made over the past decade in increasing the vocational education opportunities available to students with handicaps. Most of the initiatives have focused on the delivery of services to mildly handicapped students both in regular and separate vocational programs. Only recently has there been any recognition of the vocational competence that can be acquired by severely handicapped individuals. Interestingly, the relatively new efforts directed at vocational training and employment of severely handicapped students have produced more research on the effectiveness of programs and specific interventions than can be found over the entire ten-year history of vocational education for mildly handicapped learners.

Because of the lack of information regarding the effectiveness of vocational education programs in serving handicapped youths, there are many questions which should be asked. First, "What are the best instructional settings for teaching occupationally specific skills and knowledge?" Prevailing practice has been to provide the majority of instructional time in classroom and laboratory environments both on prevocational and occupationally-specific skills. One might ask "What would be the effect of increased cooperative education and other paid on-site training experiences on the acquisition of both occupational and work-related skills and attitudes?" Further, "How can we insure that students with handicaps acquire the skills necessary for the adult world in environments that maximize interaction with nonhandicapped peers?" Following graduation from school more and more handicapped youth strive for lifestyles which resemble those of their nonhandicapped peers, the challenge to vocational education is the development of models which facilitate social and educational integration and set the stage for continued particpation in the work force and the community.

Another question which must be asked relates to collaboration between vocational education and other social and employment service agencies. Specifically "What effects dc the provisions in the Perkins Act, for collaboration across agencies, have on increasing access to vocational education and training programs by handicapped students?" Clearly, state-level and site-specific research must be carried out within the next few years to test the power of this initiative.

In summary, most of the questions raised above are a direct result of the lack of outcome data related to the success of handicapped students in vocational education and ultimately in employment. There is a need for systematic research agenda to determine the most effective programs, policies, strategies, and training environments in vocational education for those students who are difficult to teach.

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Commentary: Secondary Vocational Education

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Dr. Cobb's paper provides an excellent overview of the secondary vocational education enterprise, current governing statutes, and alternative programming approaches that have emerged for serving secondary vocational students with special needs. Of particular note, the section on interagency linkages acknowledges the potential for strengthening transition services via joint initiatives across special education, vocational education, and vocational rehabilitation delivery systems.

Dr. Cobb's discussion of student outcomes focuses somewhat narrowly on the traditional measures suggested by Evans and Herr (1978). For example, recent research by Farley (1979) has identified over 250 outcome questions about vocational education students; a study by Darcy (1979) examined vocational outcomes and their correlates; and Wentling and Barnard (1984) examined the perceptions of vocational education held by various stakeholders in Illinois. In essence, these studies substantiate the multidimensional nature of contemporary vocational education outcomes as delineated in The Unfinished Agenda (National Commission on Secondary Vocational Education, 1984). Additionally, as noted by West (1984), the five goals of the Commission are closely related to outcomes identified by the Office of Special Education and Rehabilitation Services Transition Model (Will, 1984). Understood from this perspective, the articulation of contemporary vocational education outcomes by the Commission may well help to facilitate increased opportunities for students with special needs and provide a framework for initiatives to alleviate the apprehensions expressed in Dr. Cobb's section on outcomes.

While not addressed in the paper, the implications for in-service and preservice personnel development merit serious consideration. As noted by Conaway (1984),

> For vocational educators to contribute effectively to the transition of handicapped individuals, special education and rehabilitation professionals must involve vocational educators in the planning and development stages of the instructional models fur transition. The mission and goals of vocational education, and the expertise of vocational educators, must be understood by special educators and rehabilitation professionals before role expectations can be realistic. (p. 12)

Indeed, program development which facilitates an interfacing of transition-to-work services provided by the Rehabilitation Act of 1982, the Job Training Partnership Act of 1982, and vocational and special education legislation, appears to be timely. Program improvement mandates of the Perkins Act coupled with new transition-to-work priorities in the Education of the Handicapped Act Amendments of 1983 provide ample opportunities and some resources for in-service and preservice initiatives to facilitate linkages across service providers.

The need to increase the cooperative education and other paid private sector training experience for handicapped students is implied by Cobb in his discussion of the Job Training Partnership Act. Interestingly, vocational rehabilitation and public job training programs (e.g., CETA and JTPA) have traditionally utilized such settings. More recently, these efforts to place youth in competitive employment training stations have been strengthened by the Targeted Jobs Tax Credit (TJTC) legislation. However, noneconomically disadvantaged youths and handicapped youths not qualifying for vocational rehabilitation services do not have equal access to such instructional settings. At present, only those students eligible for vocational rehabilitation service (e.g., those with severe and moderate handicapping conditions) and economically disadvantaged youths qualify for TJTCs. From an advocacy perspective, an agenda for increasing instructional settings in the private-for-profit sector should also include efforts for broadening TJTC certification standards to include all handicapped students aged sixteen to twenty-one.

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Chapter 3

Postsecondary Vocational Education

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Postsecondary Vocational Education

The Road Not Taken

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really the same,

And both that morning equally lay
In leaves no step had trodden black.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood and I-
I took the less traveled by,
And that has made all the difference.

Robert Frost

The American educational system is, indeed, at a "fork in the road." Vocational educators are unavoidably confronted with a situation where it is evident that many handicapped persons are not receiving the same educational and job market opportunities that are available to their able-bodied counterparts. We can elect to ignore this unacceptable situation, in the irrational hope that it will go away, or seek to provide more meaningful vocational education opportunities and support for all persons who can benefit from them.

The Problem

Many postsecondary vocational education programs simply have not adequately addressed the educational needs of the total spectrum of learners, especially those who are handicapped. This situation is somewhat understandable, if one considers the difficulties known to be associated with efforts to educate moderately to severely handicapped youth within regular "mainstream" settings. These difficult conditions are typical of those encountered in most postsecondary vocational education programs. In addition, as is also often the case in the business and industry community, when many vocational programs claim that they provide services to "handicapped" students, they often are actually saying that they serve visibly handicapped learners with physical and/or sensory disabilities. Postsecondary vocational programs are, however, enrolling an increasingly larger group (mildly handicapped persons) who can and should benefit from their participation in such programs. A large proportion of the students in this group can be classified as being mildly mentally retarded or learning disabled. While a large number of more severely disabled persons can and do benefit from participation in postsecondary vocational education programs, this paper focuses upon the mildly handicapped learner. In the view of the author, this group represents the largest "unserved/underserved" clientele for whom the biggest improvements can be most quickly achieved within postsecondary vocational education programs.

The current emphasis on "transition" provides a logical opportunity to better educate mildly handicapped individuals who are already receiving postsecondary vocational education services. Clearly, the nation has long since passed the time at which most of the handicapped accommodation energy and discussion were concerned mainly with installing wheelchair ramps and improving building access. Efforts now should improve "access" in terms of recruitment, counseling, instruction, job placement, and a variety of other far ranging philosophical and operational commitments to handicapped learners.

The U.S. Commission on Civil Rights (1983) reported that 50-80% of the working age population of disabled adults was unemployed. Madeline Will (1984) made note of a 1979 U.S. Department of Labor report that claimed that disabled adults who successfully obtain publicly-supported day and vocational services often tend to: (a) make slow progress toward employment, (b) experience low wages, and (c) find themselves segregated from nondisabled co-workers. In addition, approximately 250,000 to 300,000 disabled students leave special education programs each year and their prospects for finding and maintaining jobs in the work force are bleak. Unfortunately, many of these unemployed disabled adults also encounter long waiting lists when they seek the assistance of community services to help overcome their problems.

Will (1984) also noted that it has been almost a "school generation" since federal legislation guaranteed all children with handicaps the right to free appropriate-public education. Thus, Will believes that the federal government should also begin to focus on assisting persons with disabilities to accomplish the "transition" between secondary school programs and adulthood and working life. She describes this transition from school to working life as an "outcome-oriented process" consisting of a collection of experiences and support services that eventually lead to employment. Postsecondary vocational education programs represent a major component of our society's bridge between secondary school programs and what Will (1984) calls the "opportunities of adult life." As a result, postsecondary vocational educators now have the opportunity to play meaningful roles in the current wave of enthusiasm for transition-related activities.

One of the primary assumptions stressed in the current emphasis on transition is the belief that sustained employment represents an important educational outcome for all Americans. Meaningful employment is also an important factor in the existence of almost every adult; gainful employment effects people's social experiences, their contributions to society, and permits them to establish their adult identities (Will, 1984). Thus, postsecondary vocational education programs represent a component of the transition process which has the potential to enhance numerous socio-economic aspects of clients' personal lives, as well as their communities.

The number of disabled persons managing to find their way from school to employment without assistance is unknown, but that number is believed to be strongly influenced by the labor market, the nature of job-related training that they have completed, and their access to appropriate community services. These community services include a variety of postsecondary education institutions such as community colleges, vocational and technical schools, and colleges/universities. These various institutions have proven the effectiveness with which they can contribute to the transition from school-to-work for disabled, as well as able-bodied youth (Will, 1984). Thus, while much of the current emphasis on transition is focused at the secondary level, numerous forms of postsecondary education programs clearly have a substantial role to be played in this important campaign.

Postsecondary Vocational Education's Role in Transition

Moss (1985) noted that postsecondary vocational education programs have a direct role to play in transition issues. He proposed that vocational educators cannot afford to ignore their professional responsibilities to examine their programs' policies and purposes when the goals and standards for all levels of public education are under close scrutiny. He further believes that the vocational education system's place within the American educational system and its basic role in the preparation of workers is at stake.

Federal vocational education policies have focused increased attention on the preparation of minorities, women, the elderly, disadvantaged, and handicapped persons for work with the hope that such services will help reduce unemployment rates and related societal costs among such populations. It appears that these vocational policies have not yet achieved the ideal of equal educational opportunity for all since youth unemployment has, thus far, tended to be concentrated among persons living in poverty areas, those with low educational attainments and/or with disabilities, and among those of minority races (Moss, 1985).

Moss (1985) contends that equal access to education is a requisite condition for equality of educational opportunity and sees evidence that, to some degree, government policies have improved access levels. For example, between the 1978-79 and 1980-81 school years, the number of women enrolled in noncollegiate postsecondary occupational programs rose from 47% to 59%, while the proportion of nonwhites enrolled in such programs rose from 18% to 33% (Gollady & Wulfsberg, 1981; National Center for Educational Statistics, 1983). Unfortunately, similar data about persons with disabilities is not readily available and, although there is evidence of diminished patterns of gender and race dominance in postsecondary vocational program enrollments, data do not exist which note the achievement of similar gains for persons with disabilities.

Although lobbying, public support, and an increased national focus regarding postsecondary programs for handicapped learners has emerged in the past few years, Owens, Arnold, and Coston (1985) cite research statistics which indicate that the number of handicapped learners being served in postsecondary programs is limited. As an example, Owens et al. (1985) cited the Vocational Education Study: An Interim Report (1980) that indicated that only 1.1% of the student population in junior/community colleges was handicapped and that only 2.2% of the students in postsecondary vocational education programs was handicapped. In noting the disparity between these incidence levels in comparison to Reynolds' (1981) projection that 12% of the population is handicapped and Balow's (1981) claim that the majority of handicapped students is mildly handicapped, Owens et al. (1985) concluded that only a minimal proportion of the handicapped population is benefitting from participating in postsecondary vocational education programs.

Brolin and West (1985) have suggested that postsecondary institutions should be ready to meet the challenges created if increasing numbers of special needs learners enroll within their programs. They see vocational educators as crucial factors in the career development system for handicapped learners. However, they also acknowledge that additional support services personnel, e.g., vocational evaluators, counselors, and resource educators, should be available in order to cope more effectively with students' educational needs that exceed the resources and/or expertise of regular vocational instructors.

Trends in Support Services

In an effort to identify the range and availability of special support services available within postsecondary vocational education programs, Kingsbury (1984) conducted a survey among Minnesota's Area Vocational-Technical Institutes (AVTIs). With federal and state legislation focused on the mainstreaming of special populations into secondary vocational education programs in recent years, it was assumed that increased types and amounts of special support services would also have become available in postsecondary programs. Kingsbury's (1984) project sought to determine availability of support services and to also identify any trends of program development and/or related cut-backs that had occurred recently in the AVTI system.

Kingsbury (1984) concluded that support services are fairly evenly distributed throughout Minnesota's AVTI system. He found no substantial stratification of services and made specific note of the fact that many of the rural AVTIs are often as well equipped to assist special needs populations as AVTIs located in the larger metropolitan areas. The only exception was related to services for the hearing impaired, which are concentrated at St. Pauls' AVTI, with its nationally recognized vocational program for hearing impaired learners.

Kingsbury's (1984) research identified the following trends among the existing array of support services: (a) there has tended to be a general increase in the amount of services available but not in the number of service providers, (b) it is not unusual for outside agencies to be used to provide support services such as mobility training, independent living skills, day care services, occupational therapy, physical therapy, readers and interpreters, and chemical dependency support groups, and (c) the external resources that provide services are from both governmental and private funded agencies focused on welfare, corrections, employment services, services for the blind, vocational rehabilitation, mental health, medical, sheltered residences, day care centers, minority advocacy groups, and chemical use/abuse.

Kingsbury (1984) made the following conclusions after analyzing his survey data:

- The need for adaptations to curricula and equipment will increase as more special needs learners attend AVTIs.
- Dissemination of effective materials and state-of-the-art preservice training is essential to "close the gap" in program development efforts.
- Preservice and in-service training opportunities should be provided to assure that staff expertise at AVTIs is kept above minimum standards to enable effective recruitment and enrollment of students, to maintain appropriate on-going student support services, to assure student access to high quality instruction, and to manage the coordination of these special support services for the students needing them.
- Substantial efforts should be made to train and support professional staff at each AVTI in regard to technologies, such as rehabilitation engineering, computer-assisted instruction, interactive training systems, and innovative strategies for sharing and coordinating services.

Policy Issues

Greenan and Phelps (1980) reviewed the policy-related problems that were believed to affect the delivery of vocational education to handicapped learners. The following eight topics represent policy-related problem areas which were identified by that study: (a) interagency cooperation and agreements, (b) funding and fiscal policy, (c) service delivery and program alternatives, (d) personnel preparation, (e) state legislation, (f) federal legislation and regulation, (g) attitudes, and (h) program evaluation and improvement.

While it is believed that all of these issues are worthy of attention and concern, the first two were identified in Greenan and Phelps' (1980) study as being representative of the most prevalent concerns expressed by state education agency staff. The focus on interagency efforts was interpreted as reflecting the involvement of those state personnel in activities designed to provide a continuum of vocational education services and opportunities that could substantially benefit handicapped learners in postsecondary vocational education programs. The interest in financially-related policy issues was assumed to be an indication of concern about limitations imposed on vocational education programs by inadequate federal, state, and local funds. Greenan and Phelps concluded that inadequate funding policies, formulas, and coordination between these agencies funding processes were also seen by these state personnel as significant aspects of the financially-related policy category.

Finally, Greenan and Phelps noted that these policy areas are still in need of additional study at both the state and local levels. The "good news" is provided by the emergence of the recent federal focus on the transition of handicapped learners from school to the adult world (often via the postsecondary vocational education system) and a concurrent expansion of related research and development efforts, many of which will focus on the policy issues in the list above.

Until recently, the processes and related policies which determine how handicapped learners enter, experience, and exit postsecondary vocational education programs have received relatively limited amounts of investigation. Brown and Kayser (1982) noted that a disproportionate number of handicapped learners in these postsecondary vocational programs drop out or are forced out of such programs, often before support services personnel are aware that specific students have unique educational needs that might be remediated by means of timely, appropriate special services.

Designing Processes and Policies

As a result of their research efforts within Minnesota and nationally, Brown and Kayser (1982) reached the following conclusions about the status of processes and policies related to the education of mildly handicapped learners in postsecondary vocational education programs:

1. There is a clear need for improved communications and more systematic interagency collaboration between the agencies and institutions which address the educational/career development needs of persons with disabilities.
2. Surveyed state education agency staff were unanimous in their desire to examine a conceptual model for postsecondary transition processes that could serve as the basis for managing/delivering improved vocational education services for post-high school populations in their service regions.
3. In 1981, very few states had more than one or two operational examples of programs designed specifically to serve the vocational training needs of handicapped postsecondary student populations. In fact, 63% of the responding states had no known examples of such on-going efforts. Hopefully, the recent federal transition-related initiative has improved this situation, but the synthesis and widespread implementation of the new knowledge generated by these research and development efforts will require much time, effort, and determination, as well as additional funding.

Brown and Kayser (1985) responded to the findings of their study by describing attributes that they believed should be exhibited by systems designed to effectively enhance the transition of handicapped populations into and through postsecondary vocational education programs, as well as into related gainful employment. Those attributes are described as follows:

1. Flexibility--Models for transition-enhancing educational systems should be sufficiently generalizable to allow them to be applicable to a wide variety of vocational settings, while still being capable of addressing unique factors found at each institution.
2. Compatibility--Transition models should consider all prospective participating institutions' and agencies' varied perspectives regarding their clients' needs and those agencies' criteria for determining client eligibility.
3. Specificity--Transition models should be capable of: (a) measuring learners' progress through the transition process, (b) determining the effectiveness of programs, as well as specific

courses, and (c) considering both student and program-related measures to address the interdependence of students and their educational programs.

4. Measurability--The operation and impact of a transition-enhancing system and its specific subcomponents should be measurable so that their effectiveness can be accurately evaluated.

Brown and Kayser also claim that "ideal" transition-enhancement processes should consist of four basic phases. Phase one is assessment, which has two levels: informal and formal. During the informal assessment phase, instructors conduct on-going assessments of the "satisfactoriness" of each student's performance. Then, students assess their "satisfaction" with their programs, courses, instructional processes, and the educational institution in general. When formalized, these two processes can enable both students and educators to quickly identify emerging educationally- related problems and to take corrective measures, when necessary.

Formal assessment efforts should be initiated when the informal activities fail to provide adequate information about the nature of problems and/or how those conflicting staff/student needs can be resolved. Formal assessments are typically conducted by support services personnel or vocational assessment specialists.

Phase two, planning, begins after assessment efforts identify students with real or potential educational problems. Once problems have been diagnosed, response options can be organized into one or more of three categories: "correction, compensation, and circumvention."

Phase three, implementation, consists of the operation of strategies and activities which were designed in accordance with the assessment and planning stages. During this phase the focus is clearly on the "who-what-when-where-how" aspects of the delivery of appropriate activities within the institution or in conjunction with appropriate agencies.

The fourth stage, evaluation, contains activities designed to determine if a student's educational problems have been adequately resolved. If and when these problems are found to still exist, new strategies may be attempted. However, it is sometimes necessary to acknowledge that certain problems cannot be resolved and to conclude that instruction must be continued (or terminated) without providing adequate resolutions for the problems.

Interagency-related Issues

The existence of unemployment rates well above 50% among handicapped populations tends to support the contention that secondary and adult programs are not serving the needs of handicapped persons as adequately as is desired. Wehman and Barcus (1985) indicate that the establishment of formal relationships between public school systems and post-school service providers is imperative. Such efforts should include the identification of agency contact persons within each system. Also, intensive staff development efforts for administrators and direct services personnel should be focused on the development of their understanding of the contributions and limitations of the other agencies involved. Wehman and Barcus feel that this training will help restructure the delivery of services, help eliminate the duplication of services, and enhance the availability of services to meet the service needs of disabled persons. Much of this will be made possible by involving the appropriate agencies in more effective joint planning regarding the delivery of services for clients (Sears, 1981).

Once interagency cooperation has been enhanced adequately, educators should be encouraged to shift their attention to the development of instructional technology that will overcome the currently too common occurrence of ineffective educational programs that are unable to make students employable. Hopefully, current emphasis on the transition of the handicapped into the work place will result in improved services within schools (secondary, as well as postsecondary) and a wider range of vocational alternatives within local communities (Wehman & Barcus, 1985).

Conclusions and Recommendations

"Where do we go from here?" The following series of comments identify some important factors to be considered in future efforts to educate mildly handicapped, postsecondary vocational learners.

Many postsecondary vocational institutions in Minnesota, as well as those in many other states, are noted for their high quality vocational education programs. However, these institutions are encountering a variety of changing circumstances which will demand substantial changes if the quality of those programs is to be maintained or improved. Pucel (1985) recently noted that AVTIs are faced with a series of changes: (a) the job skills demanded within business and industry are evolving rapidly, (b) the composition of student populations is changing (including increased willingness to admit various special needs populations), the average student is getting older, and more students are attending part-time, and (c) most instructional programs' enrollments are no longer growing as they were during the 1960s and 1970s.

Pucel acknowledged that many changes will be required to help postsecondary vocational education programs respond to the changes facing them. He sees the revitalization of curricula as a major step toward accommodating the needs associated with the changes that are occurring. In fact, Pucel believes that it is critical that AVTI staff be taught techniques for developing curricula which will enable instructors to teach an increasingly broader range of students the full range of behaviors that will be required in industry and the world of work.

If such an expansion of postsecondary vocational instructors' abilities can and does occur, the potential benefits for handicapped learners are immense. Not only would they be faced with increased opportunities to enroll in vocational training programs, they would also have access to instructors who would be more qualified to address the unique educational needs of handicapped learners.

Another seldom discussed issue with implications for handicapped learners in postsecondary vocational education programs is related to the basic concept of determining how to achieve the goals of society and the workplace, as well as those of individual students. Moss (1985) noted that while vocational education claims that it seeks to achieve the mutual satisfaction of individual students and of society, many programs tend to emphasize one or the other. Too many postsecondary programs emphasize satisfying society (i.e., employers) and pursue the objective of fitting individuals into jobs instead of focusing on developing individuals' capacities for occupational choice and versatility. Moss believes that vocational education programs are often based primarily on projected numbers of occupational vacancies, not on potential student demands. In addition, curricular content tends to be based on analyses specific to occupations or jobs, with little emphasis focused on occupational transferability or transportability. Especially disturbing (if proven to be true) is Moss' belief that evaluation criteria tend to be centered almost exclusively upon economic criteria such as employment rates, earnings, and cost per placement, to the exclusion of personal and educational criteria such as vocational development, reduced dropout rates, and developing adequate problem-solving skills among graduates.

Brown and Kayser (1982) suggested that postsecondary vocational education transition-enhancement efforts should be based on a systematic model in order to best assure that such a complex and challenging task can be accomplished successfully and efficiently. They suggested that once such a model has been conceptualized, it will be necessary to identify and analyze policies and information needs at both the postsecondary and secondary institutional levels, as well as in terms of the external agencies which are involved in transition processes. State and local policies should be examined in terms of how they may inhibit or facilitate student transition into, through, and out of vocational education programs into related employment opportunities. Information needs should be examined in terms of the nature of handicaps or disabilities exhibited by students and in terms of how many such people plan to enroll in vocational education programs at the secondary or postsecondary levels.

Once these facts have been collected it will then be necessary to identify specific program and student-related instructional needs and how they will be addressed. At this point many educators realize the potentially overwhelming, immense nature of the transition-enhancement effort. All persons involved in vocational transition at the secondary and postsecondary levels should be able to effectively understand and use relevant information which will be applicable to efforts to serve each handicapped person's unique educational needs. Much of the anxiety which emerges in efforts to accommodate handicapped learners is due to educators' fear of the unknown associated with such new experiences. Many of these fears can be overcome or avoided by providing appropriate in-service training experiences to those persons who are or will be involved in transition- related activities.

It should also be noted that effective transition-enhancement efforts must often cut across many boundaries. For example, transition efforts not only involve secondary and postsecondary educators, they often also draw upon the services of a variety of community service agency personnel, such as those in state vocational rehabilitation and employment services. These multiagency efforts coordinate the flow of funds, services, and information across many "turf" boundaries and encounter a wide variety of bureaucratic requirements and restrictions. These complexities have been the driving force behind the numerous efforts in recent years to develop effective "interagency agreements." Clearly, such agreements should be acceptable to all agency personnel and be in compliance with the policies at both the state and local levels; otherwise practical benefits will never emerge in the delivery of services to handicapped clients in the "real world."

Another critical issue in the promotion of transition-enhancement efforts is the establishment of "transition managers" positions within all participating agencies/institutions. In other words, each secondary or postsecondary school and cooperating agency should designate a specific person who will be assigned the primary responsibility for developing and implementing transition activities.

In order for postsecondary vocational education programs to serve the educational needs of handicapped learners, it is necessary for those programs to quickly and effectively identify students with critical educational needs and to determine the specific educational needs of those persons. Most of these concerns can be identified by pre-instructional counseling and testing services. However, many potential problems are not discovered by such efforts and emerge only after students have actually begun their instructional programs. Therefore, there is a great need for vocational instructors to be able to identify and monitor special needs students during instructional programs. This will permit the quick and effective identification of potential dropouts or underachievers, prior to the point at which they reach the "point of no return" and their problems can no longer be effectively corrected, compensated for, or circumvented within the limits of the vocational program's services.

Postsecondary vocational education students are often very different than students found in high school programs. These differences can usually be attributed to a variety of factors: (a) postsecondary students tend to be considerably older, more mature adult learners (the average student's age is often above 25 in postsecondary vocational institutions), and (b) such students are quite different from high school students in terms of the sources or levels of motivation for attending, since enrollment is strictly optional at the postsecondary level.

If instructors have the means to informally assess students within their specific learning environments, the resulting information can potentially be very useful to efforts to overcome emerging learning problems. This approach assumes, however, that participating instructors' attitudes and their institution's policies are committed to accommodating those unique student needs that are identified. Such an approach also assumes that flexible curricula and a broad array of appropriate support services are readily available to those students identified as having special learning needs. Not only should instructors and institutional programs be willing and able to adapt to learner needs, a monitoring/evaluation system should also be established in order to continually evaluate the effectiveness and validity of each of the transition-enhancement processes. Program components which are found to be unnecessary and/or ineffective can then be revised or deleted.

Moss (1985) has suggested that vocational education should seek to develop all learners' capacities to the level at which they have the capacity to choose and pursue their own careers. Efforts to fit individuals only into careers in which businesses or industries have shown clear demands for substantial numbers of workers tends to be a major disservice to handicapped and disadvantaged learners. In fact, such efforts seem to limit students' development of crucial abilities to adapt to rapid changes in future job markets. Clearly, this basic notion deserves broad-based support throughout the field, and especially in preservice and in-service teacher education programs.

Recent conferences sponsored by the National Network for Professional Development in Vocational Special Education have produced valuable insights on the matter of personnel preparation (Chadsey-Rusch, 1984). Among those recommendations for additional efforts are several focusing directly upon the plight of handicapped learners in postsecondary vocational education programs:

1. The need for greater emphasis on interdisciplinary approaches to personnel development, accompanied by improved communications and collaboration efforts between special education, vocational education, vocational rehabilitation, social work, and business and industry.
2. The desirability of developing and disseminating model transition programs and concepts.
3. The provision of meaningful, effective training for program personnel who will be involved in the implementation of key activities such as job development, placement, follow-up, and labor market analysis.

Berliner's (1985) comments suggest that now may be an appropriate time to seek reform in the total arena of teacher education. Certainly, unless we can establish a broad acceptance of the unique educational challenges presented by adult learners with handicaps (or other unique learner needs), reform-minded educators may tend to overemphasize mechanistic matters such as: how to revise the technical contents of curricula, funding, course schedules, equipment, supplies, placement rates, and student attendance. It is easy to forget about many of the more personal and human aspects of life faced daily by many handicapped persons.

Educators should find a sense of pride and energy in knowing that their attempts to address the unique educational needs of students with disabilities can also potentially improve their abilities to serve students throughout the ability continuum. Indeed, the humanistic side of education which many educators associate only with the provision of educational services for special needs learners, is also closely associated with meeting the needs of the broad spectrum of students participating in postsecondary vocational programs.

Berliner (1985) supports this position by noting that educational researchers have found that teacher attitudes, expectations, and behaviors do affect students' performance. For example, students perceived to be low performers tend to be assigned seats farther away from their teachers, are often treated as groups (not individuals), are smiled at less often, have eye contact made with them less often, are called on less often to answer questions, are given less time to answer questions, are praised more often for marginal answers, are praised less frequently for successful public responses, and are interrupted in their work more often. How often have educators been guilty of such behavior without even being aware of their tendencies to do so. As Berliner suggests, we should tap into the rapidly growing educational research and technological knowledge base to develop increasingly higher quality teacher preparation programs at both the preservice and in-service levels.

For postsecondary vocational education, a broad educational improvement strategy should be focused on: (a) the development of more effective institutional policies and practices committed to the effective education of handicapped learners, (b) a continuing effort to move beyond the creation of interagency agreements to the implementation of meaningful joint agency *services*, and (c) the implementation of conceptually sound approaches to postsecondary vocational education's role in the transition of the handicapped to the work place. For, as the traveler in Robert Frost's poem experienced, if we make a sincere effort to make the best of our opportunities, we are not likely to regret the results and it is not likely that we will ever feel that we wasted our time and resources.

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Commentary: Postsecondary Vocational Education

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Are persons with disabilities receiving the same educational and job market opportunities that are available to their able-bodied counterparts? If not, what can postsecondary vocational education do to provide such opportunities? Can it afford to sit idly by and do nothing? These are but a few of the questions which Dr. Brown addresses in his discussion of how postsecondary institutions can better meet the needs of handicapped youth and adults. The purpose of this commentary is to explore some of Dr. Brown's responses to these questions.

Perhaps the best place to start is with the issue of whether or not the disabled are receiving equal opportunity to education and the job market. Dr. Brown cites more than sufficient research to conclude that the disabled are still not receiving appropriate opportunities and support services. In fact, the author provokes a sense of urgency, as well as a sense of excitement for professionals to respond. A sense of urgency is found in that there is much to be done by postsecondary vocational education programs to accommodate fully handicapped learners in their programs. A sense of excitement is noted in that with the new federal transition initiatives, postsecondary institutions are reconceptualizing their roles in providing vocational education to handicapped populations.

At the core of this deliberation is an analysis of postsecondary's role in improving "access". "Access", as defined by Professor Brown, does not refer solely or simply to the physical accessibility of vocational programs, e.g., installing wheel chair ramps and the like. Rather, "access" is defined in terms of recruitment, counseling, instruction, job placement, as well as a variety of appropriate philosophical and operational commitments. Brown suggests that the appropriate multifaceted strategy for serving the disabled consists of in-service training of vocational and related staff, seeking to achieve mutual satisfaction between student aspirations and program opportunities, modifying state and institutional policies and procedures that may hinder the transition process, and examining the ways in which institutions evaluate student success, e.g., numbers placed in job positions versus the effect of programs in keeping high risk students in programs.

It is especially encouraging to note that within the growing list of OSERS-sponsored postsecondary transition projects, several exemplify a number of Brown's suggestions. At New York University at SEHNP (1984) and Colorado State University (1984), the postsecondary demonstration projects included strategies which provided for staff in-service training and career counseling opportunities for the disabled. Still yet, there are other OSERS' projects that go beyond Brown's basic principles. Winchester (MA) Public Schools (1984), in collaboration with their local colleges, offer an extended year program for the learning disabled which not only addresses the development of college survival skills but also the nurturing of the student's evolving social and emotional needs. At City University of New York (1985a), the administration is implementing a low cost, time-limited, nondegree program for handicapped students. Another project at City University of New York (1985b) provides an outreach component by maintaining a permanent site for New York City where young people in-school and out-of-school, are able to obtain career education and training in self-advocacy. Trinity College (VT) (1984) continues to serve a more severe population of handicapped within a postsecondary setting by utilizing effective interagency agreements, cooperative work environments, job development assistance, as well as by addressing the needs of the severely disabled for independent living skills.

Dr. Brown focuses on an array of important programmatic issues related to providing "access" to the learning disabled and the mildly retarded at the postsecondary level, including postsecondary institutes and community college. Brown's discussion does provide a valuable and comprehensive beginning for deliberation of postsecondary's role.

However, there is a larger issue that is emerging within Brown's paper, within each of the OSERS' projects cited, and even between the lines of this commentary. At the crux of this reflection and program development is the question: "What is postsecondary vocational education?" While this is a simple question, is it really so simple to answer? A decade ago, access to postsecondary facilities was the prime strategy for providing access to disabled youth. Dr. Brown claims access to programs has now transcended physical access to include curriculum and ancillary issues. Within this discussion, the scope of our own perceptions of what vocational education is at the postsecondary level has been changing as well.

As one examines the current OSERS' model transition projects and other postsecondary initiatives, how more exciting they become in helping the profession of vocational education continuously refine and re-define the roles of our institutions, our programs, and most importantly, ourselves as vocational educators. How can we not help but elect to go down a new path. Given this perspective, one must wholeheartedly agree with Dr. Brown's concluding comment: "if we make a sincere effort to make the best of our opportunities, we are not likely to regret the results or feel we wasted our time and resources."

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Chapter 4

The Job Training Partnership Act and Job Corps

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The Job Training Partnership Act and Job Corps

Since October 1, 1983 the Job Training Partnership Act (JTPA) has been the nation's major employment and training legislation. As implementation of the Act began in late 1983, it was apparent that a new tool to improve the employment and training of handicapped youth was available. The key to using this new tool is to develop an understanding of the rules and regulations regarding Public Law 97-300, the Job Training Partnership Act.

The purpose of the JTPA is to "establish programs to prepare youth and unskilled adults for entry into the labor force and to afford job training to those individuals facing serious barriers to employment." To understand the significance of JTPA and its' role in serving handicapped youth, it is necessary to become acquainted with structure of the JTPA and how funds flow from the federal to the state and local levels.

Subsequent sections of this paper will discuss: other U.S. Department of Labor programs such as the Job Corps; approaches to serving handicapped youth in the JTPA; the importance of interagency linkages; and implications for professional education and future research.

Types of JTPA Administration

There are two basic structures for the administration and dispersion of JTPA funds. The state structure which disperses the majority of funds is controlled by the Governor. In this structure the funds and general administrative authority pass from the Department of Labor to the Governor for Title IIA (Adult and Youth Programs), Title IIB (Summer Youth Employment and Training Programs), and Title III (Employment and Assistance for Dislocated Workers). In the other structure, Title IV (Federally Administered Programs), the U.S. Department of Labor disperses and administers the Native American Programs, the Job Corps, Veteran's Employment Programs, National Activities, Labor Market Information, and the National Commission on Employment Policy. Title V (Miscellaneous Provisions), which is also administered by the U.S. Department of Labor, is the section of the JTPA which administers and disperses funds under the Amendments to the Wagner-Peyser Act.

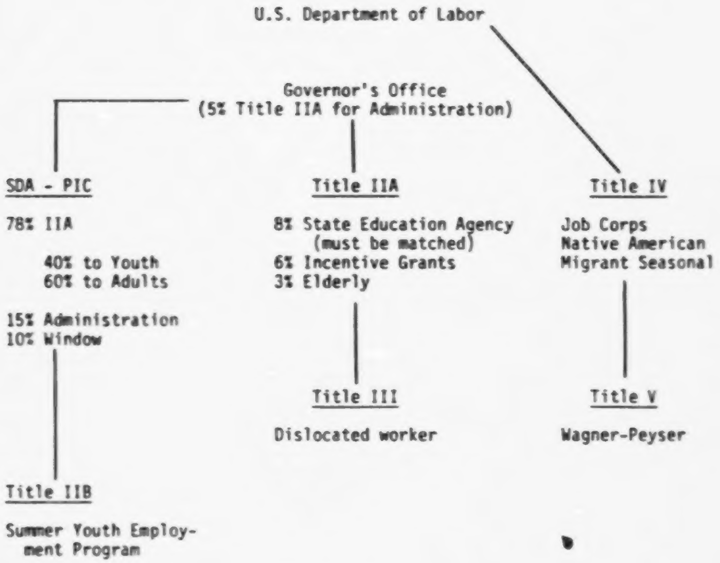
Governors' Responsibilities Under the JTPA

The Governor of each participating state (all states participate in JTPA presently) must: (a) appoint a State Job Training Coordinating Council, (b) divide the state into Service Delivery Areas (SDA), (c) approve Private Industry Council (PIC) service delivery plans, (d) oversee and audit PIC programs, and (e) develop the Governor's coordinating plan. Through this system, the governor then disperses Title IIA and IIB and Title III funds. Figure II illustrates how funds are disbursed through the JTPA Delivery System.

Title IIA--Youth Programs

A series of 28 services can be provided by JTPA service delivery agents to handicapped youth (ages 16-21) under Title IIA of the Job Training Partnership Act. Handicapped youth could receive these services along with the regular JTPA population or in separate projects or programs. A list of

FIGURE II
JTPA DELIVERY SYSTEM


U.S. Department of Labor
Governor's Office
(5% Title IIA for Administration)
SDA - PIC
78% IIA
40% to Youth
60% to Adults
15% Administration
10% Window
Title IIA
8% State Education Agency
(must be matched)
6% Incentive Grants
3% Elderly
Title IV
Job Corps
Native American
Migrant Seasonal
Title III
Dislocated worker
Title V
Wagner-Peyser
Title IIB
Summer Youth Employment Program

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some of the most frequently funded services for handicapped youth under Title IIA follows:

- Job search assistance.
- Job counseling.
- Remedial education and basic skill training.
- Institutional skill training--vocational/occupational skills.
- On-the job training.
- Development of work habits.
- Supportive services to enable individuals to assist in the program and assist in retaining employment.
- Education to work transition activities.
- Work experience.
- Vocational exploration.
- Job development.
- Development of job openings.

Also under Title IIA, pre-employment skills programs can be operated which provide 14-15 year old youth with up to 200 hours of instruction and activities. The instruction and activities may include:

- Assessment, testing, counseling.

- Occupational, career, and vocational exploration.
- Job search assistance.
- Job holding and survival skills training.
- Basic skills training.
- Remedial education.
- Labor market information.
- Job seeking skills training.

Title IIB--Summer Youth Employment Programs

Educators are encouraged to coordinate the Title IIA programs with Title IIB (Summer Youth Employment Programs). Although the uses of Title IIB funds are more restricted, much similarity to Title IIA funds exists. A list of eleven services which can be provided by Title IIB Summer Youth Employment funds follows: (a) basic and remedial education, (b) institutional and on the job training, (c) work experience programs, (d) employment counseling, (e) occupational training preparation, (f) outreach and enrollment activities, (g) employability assessment, (h) job referral and placement, (i) preparation for work, (j) job search and job club activities, and (k) any other employment or job training activity designed to give employment to eligible individuals or prepare them for and place them in employment such as tryout employment, vocational exploration, or the exemplary youth programs.

Congress envisioned the JTPA as a partnership in which the private sector would be a "full partner" with the locally elected officials in meeting the needs of JTPA program participants. A climate of cooperation has been developed by the makeup of the Private Industry Councils (PIC). A majority of the PIC membership must come from the private sector. Among others, PIC membership must include secondary and postsecondary school personnel, vocational rehabilitation personnel, and representatives of community based organizations.

The services provided by Title IIA and IIB can be of great assistance to handicapped youth. The JTPA challenges educators to use their imaginations in the development of programs which cooperate with the private sector in serving youth. Eligible handicapped youth can be readily served in either regular or specially designed JTPA programs.

U.S. Department of Labor Policies

With a few key exceptions, most of the authority to operate JTPA programs has been passed on to the Governors at the state level and to the PICs at the local level. Guidelines have been established to coordinate the delivery of services. PICs are mandated to provide a coordinated delivery of services within their Service Delivery Area.

Determining the Eligibility of Handicapped Youth

Handicapped youth aged 16-21 (and youth aged 14-15 in pre-employment training programs) are eligible for JTPA services if they are economically disadvantaged. Handicapped youth may also be eligible for JTPA services by the "family of one" rule which must be declared as a criterion for eligibility by the Governor. Under the "family of one" rule only the handicapped youth's income can be counted when determining eligibility, not the total family income. Handicapped adults age 22 or older are automatically considered a "family of one." At the current time, the Governors of 45 states and territories have adapted the "family of one" rule.

A dropout prevention/job placement project in Caldwell County Schools in Lenoir, North Carolina served 18 handicapped and special needs students in the first year of operation. Student disabilities were in the mental, learning, physical, and visual areas. If it were not for the "family of one" policy, only six of the 18 students would have met the JTPA income eligibility standards.

State Governor's offices can demand that handicapped youth and adults be served in each SDA according to the incidence of people with handicaps in the SDA. Wisconsin was one of the first of a few states to mandate service to handicapped populations according to the incidence rate.

Governors can also elect to disregard a handicapped person's Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) in determining financial eligibility. These and other waivers can be critical factors in determining the eligibility of handicapped youth for JTPA services.

Performance Measures and JTPA Youth Competencies

The Department of Labor requires that JTPA programs which enroll disadvantaged and handicapped youth aged 16-21 meet the following performance outcomes:

- Entered Employment Rate of 41% (i.e., 41% of the students obtained an unsubsidized job);
- Positive Termination Rate of 82% (i.e., 82% of the students entered unsubsidized employment or successfully completed a JTPA training program); and
- Cost per Positive Termination (does not exceed $4900 per person).

Programs serving handicapped and disadvantaged youth may have difficulty in meeting these performance outcome measures. Congress realized that certain youth may not be able to meet these performance measures and developed three categories of youth employment competencies. If use of these competencies is approved by the PIC and achieved by the youth served, they can be incorporated into the positive termination rate. The three youth competency categories are: (a) Basic Educational Skills--including reading, writing, and computational skills, (b) Job Specific Skills--including knowledge and skills normally required to carry out entry-level tasks of a specific occupation or cluster of occupations, (c) Pre-employment and Work Maturity Skills--including those skills needed to look for, obtain, and retain a job.

Federal Limitations

Because local school systems and State Departments of Public Instruction have control of the educational system, educational standards are set by each group and not by the JTPA. This may be of particular importance in the development of JTPA youth competencies for handicapped youth because PICs may tend to set competency levels above the ability to achieve. Although the PIC may select the appropriate youth competencies, it is basically the school which sets the standards. The collaboration of JTPA and school personnel in the development of youth competencies will eliminate many possible conflicts in this area.

Programmatic Approaches

At the start-up of the JTPA in October, 1983 it was generally assumed that it would be difficult to enroll and serve handicapped youth because of the double jeopardy of having to be economically disadvantaged and handicapped to be eligible. However, this double jeopardy soon changed when the Governors were given authority to declare and serve handicapped youth aged 16-21 as a "family of one." The "family of one," the requirement that handicapped youth be served by their incidence level in the SDA, and the waiver of SSI and SSDI, has opened the door for extensive participation by handicapped youth. The door has opened even further as special and vocational educators have discovered the value of the JTPA Youth Competencies in helping to integrate handicapped youth. To date, the majority of JTPA programs, which have served handicapped youth at the secondary level, are developed and implemented by special education departments using Title IIA and IIB funds.

Many special educators use JTPA funds to develop and implement basic education along with pre-employment and work maturity skills. Generally, vocational educators use JTPA funds to teach handicapped youth job specific skills. In many instances, special educators conduct JTPA programs during the school year which are coordinated with Title IIB Summer Youth Employment Programs. In many cases, the handicapped youth comprise less than one half of the membership of the class. The remaining members are nonhandicapped, but economically disadvantaged youth.

A handicapped youth who successfully completes a secondary school program funded by the JTPA can be counted as a positive termination by the local PIC. As noted earlier, PICs must show a positive termination rate of at least 82%. Title IIA and IIB programs at the secondary level are placing a high percentage of their handicapped students in unsubsidized employment. Secondary and postsecondary JTPA programs for handicapped youth, which have high entered employment and positive termination rates, are a real asset in helping the PICs meet their performance measures.

Alternative Approaches

Just as there are multiple uses for JTPA funds, there are also many ways in which JTPA programs can be organized at secondary and postsecondary levels. Dougherty (1985) identified six examples of in-school programs which serve handicapped youth:

- Targeted In-school JTPA Programs--designed specifically to serve the handicapped youth population.
- Mainstream In-school JTPA Programs--designed to include youth with handicaps in the JTPA eligible youth population served at the school.

- School and Business Partnership Programs--activities focused on: business personnel serving as program advisory committee members; business providing assistance to a program's pre-employment training component; employers providing on-the-job training and work experience sites for a program.
- School and City Partnership Programs--activities included: a city administration office being responsible for providing pre-employment skills training to a program; a city agency providing job development services to a program.
- School and Community Based Organization (CBO) Partnership Programs--activities focused on: a CBO providing the use of their facilities (e.g., a shop or food service facility) for training purposes; a CBO as a recruitment, referral, and intake agency for a program; a CBO as a provider of a program's pre-employment component and conductor of the try-out employment component.
- School and Other Local Agency Partnership Programs--activities included: a local Job Service Office assuming responsibility to obtain on-the-job training sites for a program; a local Vocational Rehabilitation Agency assuming responsibility for the assessment component of a program.

These activities are only a sample of the variety of approaches to the development and implementation of JTPA programs to serve handicapped in-school youth. The mandate to create partnerships with the private sector has encouraged educators to reach out and involve business and industry on a broader scale. Both educators and businesses are benefitting from the process.

Accessing JTPA Locally

Educators wishing to become involved with JTPA programs at the local level must become familiar with the make-up of the PIC. The chairperson of the PIC is the chief locally-elected official in the county or city. The PIC chairperson appoints members to the PIC. Over one-half of the appointees must be from the private sector. Other members are to be from educational agencies, organized labor, rehabilitation agencies, and community based organizations. Members are appointed for fixed and staggered terms, thus providing an opportunity for an advocate for handicapped students to become a PIC member.

As noted earlier, PICs are required to develop a Job Training Plan. This plan describes the goals of the PIC regarding the types of individuals to be served, including the number of handicapped individuals to be served. PIC plans are open to review through public hearings. Since the Job Training Plan covers a two year period, those interested in influencing the plan and the PIC need to determine the Job Training Plan development timetable. For instance, the 1986-1988 JTPA Job Training Plans went into effect on July 1, 1986. The next two year period will be from July 1, 1988 to June 30, 1990. In general, the PIC plans will undergo revisions during the first six months of 1986. The appropriate time to become familiar with and/or influence the PIC Job Training Plan and the goals of the PIC is prior to the development and implementation of the plan. Some questions to ask about the Job Training Plan are:

1. Is the "family of one" rule observed?
2. Is there a plan to serve handicapped students?

3. If so, how many? What disabilities will be served?
4. Will handicapped students be served by incidence ratios?

These and many more questions need to be asked of PIC staff members concerning the Job Training Plan. However, action by advocates and PIC officials cannot be taken without knowledge of the existing conditions, e.g., the employment status of local handicapped youth.

PICs can disburse funds through a request for proposal (RFP) process, contract with a sole source, or provide the training through programs run by the PIC. The most common method is through the RFP system. In-service delivery areas which plan to serve handicapped youth, educators can prepare for proposal development by identifying handicapped youth in their school system or postsecondary program and by reviewing the training needs of handicapped students. Educators and handicapped advocates in those SDAs which have neglected services to handicapped youth need to develop an advocacy effort to ensure the appropriate changes in the Job Training Plan.

Successful Model Programs

During the first two years of the JTPA, several successful programs serving handicapped youth have been launched. These programs could serve as models for other areas of the nation. A few of these programs includes:

1. The Contra Costa County California Private Industry Council funds a project to the Acalanes Union High School District at Lafayette. Handicapped students receive basic, pre-employment and job specific skills. The program operates in seventeen high schools and serves high school seniors. The entered employment rate of 69.9 percent was achieved in the start-up year and increased to 75 percent in the 1984-1985 year period.
2. A project entitled "Job Training Course" is a Title IIA and IIB Project in the Cumberland County, North Carolina school system. The project emphasizes employability skills, simulated work experience, and on-the-job training. One hundred ninety-two students with mental, learning and emotional handicaps participated in the project during the school year. In the summer program, 200 of the 360 students served were handicapped. Positive terminations during the school year were 85 percent. Eighty- nine percent positively terminated in the summer project.
3. The project entitled "Regional Vocational Transition Project at the Southwest and West Central Educational Cooperative Service Unit in Marshall, Minnesota" serves 78 mildly to profoundly handicapped individuals through a Governor's 8 percent coordination grant. Emphasis is on school-to-work transition in a sparsely populated region of the state.
4. A "Summer Work Assessment Program for Special Education Youth" is a Title IIB project at the Eastern Upper Peninsula School District at Sault Ste. Marie, Michigan. The focus is on summer work experience. Seventy-eight percent successfully completed the program.
5. In Marathon County, Wisconsin, the Special Education Department serves 160 in-school youth from 13 special education departments in

the region. Forty percent of the youth have mental, physical, learning, or emotional handicaps. Over 100 employers cooperate in providing employability skills, work experience, and job preparation skills. The project has greatly increased the rapport between the educational and business community. This program runs the year around using Title IIA and IIB funds. The entered employment rate is 46.6 percent and the positive termination rate is 85.5 percent.

6. A JTPA Title IIA funded project at the Fort Wright School in Covington, Kentucky provides community based vocational training for 14 in-school youth with moderate/severe handicaps. The goal is to achieve youth competencies in attending to tasks, following directions, community travel and mobility, functional survival skills, work quality and quantity, task completion, and adaptability. Students learn general job skills in cafeteria/kitchen work, dishwasher, groundswork, janitor/sexton, and housekeeping. The training goal is for 75 percent of the students to achieve 70 percent of the 10-15 youth competencies. Seventy percent will spend 40 percent of their time in a community based vocational placement. The entered employment goal is 35.7 percent and the positive termination goal is 78.6 percent.

Handicapped Youth Participation

Many PICs have found that handicapped youth are an asset to the JTPA programs. The performance of handicapped youth has been at or above the national average for JTPA eligible youth. The President's Committee on Employment of the Handicapped (1985) completed research on national JTPA performance measures for the 1983-84 year period--the start-up period for JTPA. Approximately 7.3 percent of the JTPA enrollees during the first year were handicapped persons. The positive terminations for handicapped youth during this period was 70 percent compared to 67 percent for nonhandicapped youth. The entered employment rate for all youth and adult JTPA enrollees as of September, 1984 was 65 percent; while the entered employment rate for handicapped terminees was 64 percent.

Among the states, there is a wide variation in the percentage of handicapped persons enrolled in JTPA. The range is from a low of 1.8 percent to a high of 22.5 percent. This range provides some insights as to the effectiveness of JTPA programs in serving handicapped youth. As seen in the previous section, handicapped youth are participating successfully in both mainstream JTPA projects and in projects designed specifically for handicapped youth. It is also evident that a broad range of students with various handicapping conditions are being served. This includes youth with mental, learning, emotional, hearing, visual, and physical disabilities. Across these categories, youth with mild, moderate, and severe disabilities are receiving services.

Statistics on the numbers of youth being served by handicapping condition are not available on a state or national basis. A mechanism to report this kind of data is not in place. A breakdown of the JTPA participation by handicapped youth was made in Wisconsin by JTPA funding categories. The percent of participation by handicapped youth was: (a) 15 percent of the Title IIA youth monies, (b) 27.9 percent of the Title IIB Summer Youth Employment monies, and (c) 19.1 percent of the 8 percent Department of Public Instruction Coordination grants.

It is anticipated that reports from the 1984-86 year JTPA period will show that an increasing number of handicapped youth are profiting from JTPA projects and programs. The continued development and implementation of youth competencies will be an asset to handicapped youth in achieving pre-employment, work maturity, and job specific skills. Appropriate youth competency systems will help PICs to meet their performance measures.

The Job Corps

Probably the most controversial of all JTPA programs is the Job Corps. The Job Corps program is administered by the Department of Labor which operates the Job Corps Centers. The House Government Operations Committee (Employment and Training Reporter, July 31, 1985) calls the Job Corps "one of the success stories of the war on poverty." According to a report in May, 1985 prepared by the Employment and Housing Subcommittee, "the Corps enrolls only the most economically and educationally disadvantaged young persons and does not shy away from teenagers who may not appear to have much chance for success." It is intended that participants may stay in the program for up to two years; however, the average stay is eight months. Although all enrollees do not finish the program, 75 percent of all enrollees move on to either a job or to school. In 1984, 50 percent secured employment in either the private sector or in the military upon leaving the program. Each Job Corps training slot costs approximately $15,000, but this amount usually covers more than one participant. Dissenters of the report say that while the aim of the Corps is "noble," the limited opportunities it provides cannot justify its cost to the federal government.

The Job Corps is a distinct national program which operates residential and nonresidential centers in which enrollees participate in programs of education, vocational training, work experience, counseling, and other activities. The purpose of the program is to assist young individuals who need and can benefit from an unusually intensive experience operated in a group setting to become more responsible, employable, and productive citizens. Further, Job Corps programs are designed to contribute, where feasible, to the development of national, state, and community resources, and to the development and dissemination of techniques for working with the disadvantaged that can be widely utilized by public and private institutions and agencies (Job Training Partnership Act, Part B., Sec. 421).

Section 423 of the JTPA outlines the eligibility criteria for the Job Corps. An overview of the criteria describes the range of prospective Job Corp clients:

- Age 14 or over, but under 22;
- Is economically disadvantaged or a member of an economically disadvantaged family, and who needs additional education, train-

ing or intensive counseling--to secure and hold meaningful employment, participate successfully in-school, qualify for other suitable training, or satisfy Armed Forces requirements;

- Is currently living in an environment characterized by cultural deprivation, a disruptive home life, or other disorienting conditions, as to substantially impair prospects for successful participation in other programs providing needed training, education, or assistance;

- Is determined after careful screening, as provided in Sections 424 and 425, to have the present capabilities and aspirations needed to complete and secure the full-benefit of the Job Corps, and to be free of medical and behavioral problems so serious that the individual could not adjust to the standards of conduct, discipline, work, and training which the Job Corps involves; and

- Meets such other standards for enrollment, as the Secretary may prescribe, and agrees to comply with all applicable Job Corps rules and regulations.

Although handicapped youth may be enrolled in the Job Corps, the major emphasis is on the severely economically and educationally disadvantaged youth. The Job Corps offers extensive services to this group of youth and has been successful in moving youth on to employment or continuation in-school. A report by the Mathematica Policy Research, Inc. produced at the request of the Department of Labor in 1977 was released in 1982. The study found that the Job Corps is "effective," provides "quality training," and as a whole results in a "net social profit" of 46¢ of every tax dollar spent.

Job Service Coordination

The JTPA amended the Wagner-Peyser Act of June 6, 1933, which authorized the Job Service. The purpose of this amendment was to provide a closer coordination between the JTPA and the Employment Service. Under these amendments, job training and job placement activities can be more closely coordinated. Ninety percent of the funds allotted to each state may be used for activities such as job search and placement services to job seekers; as well as recruitment services and special technical services for employers. Services to workers who have received notice of permanent layoff and the provision of labor market and occupational information can also be provided by the Wagner-Peyser Act funds.

Approximately 10 percent of the funds are reserved for a Governor's discretion in establishing performance incentives for public employment service offices and programs for groups with special needs. The Florida Alliance for Employment of the Handicapped established a project funded by the Governor's Wagner-Peyser 10% Discretionary Fund to provide a coordinated job placement service for 700 disabled persons from 14 PICs throughout the state. Technical assistance and training provided to the PICs included: (a) orientation and in-service training of the 14 handicapped employment coordinators; (b) assistance in the development of forms, records, and documents; (c) liaison services with Vocational Rehabilitation, Employment Service, Division of Blind Services, and other agencies; and (d) coordination of intake and placement reports, and monthly performance reports.

Interagency Linkages

The Congress clearly intended that linkages be implemented at the state and local levels to carry out the intent of the Job Training Partnership Act. PICs are mandated to provide a coordinated delivery of services in their SDA. A climate of cooperation is created by the makeup of the PIC. The PIC Job Training Plan must be approved by the Governor. Further, JTPA legislation cross references the Higher Education Act of 1965 and the Vocational Education Act of 1963, which has been replaced recently by the Carl D. Perkins Vocational Education Act of 1984, P.L. 98-524.

Perkins Act Mandates

The Perkins Act mandates that the State Vocational Education Plan be reviewed by the JTPA State Job Training Coordinating Council. The implication is that vocational education and JTPA programs which serve handicapped and disadvantaged students be closely coordinated. As noted in Dr. Cobb's chapter, basic remedial skills and pretraining skills are eligible for funding under the Perkins Act. These skills are closely related to the JTPA Youth Competency categories of basic, pre-employment, and work maturity skills. The role of the community-based organizations is also recognized in the Perkins Act. Educators who are applying for funds under JTPA or the Perkins Act will need to provide evidence that they have developed workable linkages with both the public and private sectors.

Interagency Opportunities

Educators can provide leadership in the development of effective interagency agreements with developing JTPA programs for handicapped youth. Among the important reasons for undertaking cooperative agreements are: (a) improved coordination for the use of funds, (b) elimination of duplication, (c) participation in shared services such as assessment, (d) enhancing the quality of the services, (e) providing for a continuous flow of services, and (f) improved rapport and attitudes between educators, employers, and other agencies and organizations concerned with handicapped youth.

The opportunities to develop partnerships, agreements, and linkages to improve the transition of handicapped youth from school-to-work are nearly endless under the JTPA. Much of the success depends upon the cooperating participants' ability to coordinate the resources within their specific communities or states. The following are some examples of coordinated efforts in the development and implementation of JTPA programs:

1. The state departments in Minnesota for Vocational Rehabilitation, Vocational-Technical Education, Secondary Vocational Education, and Special Education have formulated an agreement to develop, promote, and implement standards for the continued provision and coordination of vocational rehabilitation, vocational-technical education, and special education services to ensure that a transition from school-to-work system for all handicapped persons is established or improved at the community level.
2. A Missouri Vocational Rehabilitation Office and a Service Delivery Area have a nonfinancial agreement to improve delivery processes for mutual clients through better facilitation of the network of

mutual services, by utilizing and maximizing existing client resources, and by improved communication among the service deliverers. This agreement does not commit either agency to expenditures of funds except as developed and authorized by each agency as it interacts with specific services.

3. An agreement between the Sonoma County California Service Delivery Area and the Sonoma County Office of Education was developed to conduct a work experience program for youth. The SDA selects participants and the school system provides the training. This agreement details the cooperative aspects of each party and is jointly signed. The uniqueness of this document is that it is in the form of an agreement and not a grant.
4. An agreement exists between the JTPA Liaison Department of Human Resources, Rehabilitation Division, and the Northern Nevada Job Training Program. The agreement is designed to coordinate the provision of services to mutual clients, to maximize participant resources, and to avoid duplication of services.
5. A JTPA project in Fennimore, Wisconsin has a Worksite Agreement signed by the school district and the employer. The goal of using the worksite is to provide self-discipline, future employability skills, economic support, career development ideas, and a constructive work experience for youth.

Employment and Education Outcomes

Earlier in this paper it was noted that during the 1983-1984 start-up period, the positive termination rate of handicapped JTPA enrollees was 70 percent compared to the nonhandicapped rate of 67 percent. National figures for the 1984-1985 year are not yet available. However, performance measures are available on a project by project basis. A review of a few selected project performance and outcome measures of JTPA projects for handicapped youth are listed below. These data demonstrate clearly that handicapped persons can participate successfully in JTPA projects, and achieve above average entered-employment and positive termination rates.

1. JTPA Try-out Employment Program for Handicapped Youth, Clarion Manor Intermediate Unit 6, Ridgway, Pennsylvania: Mildly and moderately handicapped youth. Entered Employment Rate: 33 percent; Positive Termination Rate: 80 percent.
2. In-School Entry Employment Service, Canton, Ohio City Schools: Provides vocational evaluation, employment experience, employment competencies, and problem solving. Positive Termination Rate: 100 percent.
3. Job Connection Program, Union County Vocational-Technical Schools, Plains, New Jersey: Provides vocational training in managing food supplies and equipment maintenance to youth with neurological, perceptual, emotional, and mental handicaps. Entered Employment Rate: 73.3 percent.

4. School-to-work Transition, Springs, New York: Provides work experience, employment counseling, and career counseling to 19 mentally retarded and hearing impaired students. Entered Employment Rate: 72 percent; Positive Termination Rate: 95 percent.
5. School-to-work Transition Program for Handicapped Youth, Cortland-Madison BOCES, Cortland, New York: Provides vocational assessment and career counseling, job shadowing, work experience, and job placement to 40 youth with emotional, learning, and mental disabilities. Positive Termination Rate: 100 percent.
6. Youth Alternative Education Program, Sonoma County Office of Education, Santa Rosa, California: Provides assessment, testing, counseling, vocational exploration, job search assistance; and basic, prevocational and job seeking skills to 167 dropout prone youth. Thirty-nine of the students are handicapped. Entered Employment Rate: 61 percent; Positive Termination Rate: 89 percent.

Special and vocational educators involved in these projects and others throughout the nation report that a greatly increased rapport with the private sector has been developed as a result of the education-business partnerships. JTPA programs are causing educators to take a new look at the abilities of high risk and handicapped youth. These new partnerships have improved the relationship between schools and employers, thus enhancing the probability that handicapped youth will obtain employment.

Implications for Professional Education and Research

The Job Training Partnership Act, the Carl D. Perkins Vocational Education Act, and other federal legislation during the last few years have mandated the coordination of agencies in the delivery of services designed to carry out the intent of the legislation. The implication and intent of the federal legislation is that vocational and special educators, counselors, rehabilitation personnel, community-based organizations, and others at the local level coordinate their delivery of services to handicapped youth.

Teacher educators, state departments of education personnel, and others involved in preservice and in-service training of teachers must become actively involved in preparing local personnel to respond to the new legislation. Local education agencies have an immediate need to: (a) acquire the knowledge and skills to access the JTPA, (b) access and profit from the Carl D. Perkins Act, (c) develop partnerships with business and industry, and (d) use JTPA and Perkins funds to strengthen programs designed to transition handicapped youth from school to a working life.

Many local education agencies have used JTPA funds to successfully transition handicapped youth from school to unsubsidized employment. The strategies, techniques, and processes used in these JTPA projects can be used by other LEAs if professional organization newsletters, electronic networks, and other dissemination vehicles are used effectively.

From a review of recent research on programs for handicapped youth, Gugerty (1985) drew the following conclusions that should guide professional education and research initiatives:

- The unemployment rate of former special education students is unacceptably high.
- The high school curriculum frequently fails to prepare special education students with skills they need to attain employment and personal independence.
- University-based teacher training programs do not focus strongly enough on career and vocational issues.
- In-school and paid summer employment via JTPA programs appear to have a positive and significant influence on special education students' chances of attaining permanent post-school employment.

Teacher education personnel need to be in a leadership role in helping local education agencies respond effectively to new legislation and other circumstances which affect handicapped youth. It is important that teacher education departments nationally assess their current programs to determine their ability to provide leadership on such contemporary and critical issues.

Summary and Conclusion

Throughout the U.S., handicapped youth are benefitting from JTPA programs. In many programs they have equalled and even out-performed the other JTPA youth populations in the performance areas of entered employment and positive termination rates. Examples of successful JTPA programs which serve handicapped youth can be found in nearly all states. However, the success of handicapped youth in JTPA programs is inconsistent among the 596 JTPA Service Delivery Areas. A major reason for this inconsistency centers around the politics and educational climate at the local level. Although each PIC has a Job Training Plan, it is the PIC staff members who carry out the plan and make day to day decisions. PIC staff members, following the Job Training Plan, make key decisions as to which populations are served and what projects are funded, and at what level. Therefore, the Job Training Plan is an important document for professionals and advocates to monitor at the local level.

In determining how to access JTPA programs for handicapped youth, it is helpful to look at some commonalities of SDAs which are currently successful in serving handicapped youth: (a) the Governor has accepted the "family of one" rule as eligibility criteria for handicapped youth to participate in JTPA programs; (b) the Governor and/or the local PIC has made a decision to serve handicapped youth according to their incidence in the SDA population; (c) PIC staff members have surveyed their SDA to determine the needs of handicapped youth; (d) PICs have developed Requests for Proposals which are intended to involve handicapped youth in job training programs; and (e) PIC membership includes advocates for handicapped youth.

Congress developed the JTPA legislation intending to provide for a high level of state and especially local control. Each local PIC has a great deal of influence on how JTPA funds are spent. If a person or group of persons are not satisfied with the performance of their PIC in serving handicapped youth, there are several mechanisms available to influence future decisions:

- Inform the PIC of the local job training and employment needs of handicapped youth.

- Request that the PIC at least serve handicapped youth in accordance with their incidence in the SDA.
- Ask the Governor to declare the "family of one" as an eligibility criterion for participation of handicapped youth in JTPA programs.
- Find out when the PIC will review and develop the next version of their Job Training Plan and ask to review the plan.
- Provide the PIC with examples of successful JTPA programs which serve handicapped youth.
- Consider being a PIC member or promoting an advocate for handicapped youth as a PIC member.

Many SDAs do an excellent job of serving handicapped youth, while others need to expand and strengthen their services to handicapped youth. There are sufficient examples of successful JTPA projects which serve handicapped youth in all disability areas and at various levels of severity of handicap. Many of these projects or similar projects could be replicated in nearly all SDAs.

The success of the JTPA in serving handicapped youth depends to a great extent upon the political and educational climate at the local level. If handicapped youth are not being served, it is time to explore, develop, and implement a plan to change the situation.

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Commentary: The Job Training Partnership Act and Job Corps Programs

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In his chapter, Dr. Tindall provides an informational overview of JTPA and Job Corps from the perspective of how these programs intend to serve youth with handicapping conditions. He presents, in detail, the organization of current employment and training programs, their intended programmatic content, policies, measures, limitations, and various approaches being implemented. In addition to understanding the basic structure of the JTPA and Job Corps programs, readers also need to be familiar with a number of basic, historical issues and dilemmas that have shadowed employment and training programs.

Federal employment and training programs exist for numerous reasons. The major reason being the dismal employment status of youth, 16-24 years of age. This is a critical time in the lives of youth, and the transition from school-to-work is neither an easy nor smooth transformation. Those young adults at greatest risk are those who, because of limited ability or lower economic status, find themselves prone to discrimination, unemployment, or underemployment.

One cannot fail to be impressed by the favorable rates of positive termination and placement for handicapped youth reported in Chapter 4, yet as one reflects on the system and its history caution is urged. Government agencies have a tendency towards what Michael Scriven calls Managerial ideology or bias. Simply, this refers to a glossing over of facts or a strong predisposition towards favorable evaluations by an evaluator hired by a governmental sponsor (Scriven, 1976). Government agencies are often themselves predisposed to the narrow view provided by economic indicators (e.g., performance and impact, Labor market participation of trainees, administrative delivery, attrition rates, programmatic "batting averages", and benefit cost) (Mallar, Kerachsky, Thornton, & Long, 1982). In a few instances, noneconomic impact studies have been commissioned that assess such areas as: social-attitudinal aspects of work, job related attitudes and knowledge, self-esteem, involvement with the criminal justice system, health care, leisure time, and family relations (Abt Associates, 1978). However, even with noneconomic evaluations, the systematic, recognizable patterns expressed as metaphors are still the same as the economic impact evaluations: industrial production, targets, and goals (House, 1984).

Essentially, the Department of Labor has identified their key stakeholder as the Congress and they often work solely to satisfy congressional needs and interests. The dominant mode of assessing the magnitude of impact in the Department of Labor is to hire a senior labor economist to compare the present dollar value of estimated benefits with the costs incurred to produce these results. This ratio of benefits to costs is an indicator of the rate of return on the investment in human capital (Taggert, 1981). Unfortunately, in so doing they are neglecting other potential stakeholders who could surely benefit from reported achievements in working with handicapped and disadvantaged learners. The general lack of sharing and dissemination of proven practices is disturbing. If JTPA and Job Corps are succeeding as well as they report, then the need to replicate such techniques and methods in secondary special educational programs for the handicapped should be a strong priority. Expanding the list of stakeholders to include educators and trainers serves a broader audience and accomplishes more than the primary goal of Congressional approval and expanded funding. These two goals should not be perceived as mutually exclusive.

There exists a distressingly wide variation in the percentage of handicapped persons enrolled in JTPA (Job Corps does not report such percentages). The reported range runs from a low of 1.8 percent to a high of 22.5 percent. This wide range appears to be due to the local priorities set by those exercising administrative control and a general misunderstanding of the scope of the problem. Dr. Tindall does a fine job detailing the role of State Governors, PIC's, and SDA's; yet there is little insight on the major discrepancies in the amount, quality, and type of leadership provided to local staff members who actually implement the directives. some states have made great strides in serving the handicapped, while other states apparently are not aware that handicapped persons exist (Evans, 1986).

Several programs are briefly highlighted in Dr. Tindall's paper. Although JTPA seems to be targeting more handicapped individuals, employment and training programs have a long history of "creaming" with its participants. Creaming in contemporary usage refers to the selection into programs of the most able to benefit and those easiest to place in employment. Levitan & Taggart (1977) reported this pervasive practice with references to Vocational Rehabilitation. Essentially, the practice benefits the agencies funding picture and allows counselors to handle more cases than one would assume possible. As long as employment and training programs are allowed to take the client who is easily employable then the positive termination and placements rates will be impressive. This practice should be scrutinized closely.

Evans (1986) reported that some SDA's had difficulty in allocating the 40 percent funds for youth. This may be a very revealing problem since it exposes the lack of clear relations with other youth serving agencies, most notably the public schools. There have been discussions on amending the requirement and eliminating the 40 percent funding clause for youth. This would be a spurious measure and an admission of defeat in JTPA's ability to forge a working relationship with other youth serving institutions, when in some communities it clearly appears to be working.

Finally, much work needs to be done in the area of research and evaluation of employment and training programs. This is not a simple matter of calculating the number of participants served nor the cost benefit ratios: Researchers have rarely agreed on such analyses and their appropriateness. In addition, these studies rarely portray the human side of the story and the long-term implications that training holds for participants. The types of research and evaluation efforts that might be worth consideration could include:

- A study of long-term outcomes and measures of gains and shortfalls achieved by handicapped participants from entry to exit, through transition, and four years into employment (i.e., a longitudinal employability study of handicapped participants).
- A study of employer use of JTPA trainees and the subsequent hiring patterns of handicapped trainees.
- A study of proven practices that highlight collaborative arrangements between JTPA, other youth serving agencies, and the world of employment for handicapped young adults (with special emphasis on reporting on programs for mild, moderate, and severely handicapped individuals.

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Chapter 5

Business and Industry Training Programs

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Business and Industry Training Programs

Existing in today's industrial environment is an intensive network of smaller businesses that produce their own unique set of goals and services. Industry-based education and training, one such business, averages yearly investments of $10.5 billion serving approximately 12.7 million employees (Watkins, 1980), p.7). Once thought to be purely overhead costs, these training programs are measured by profitability: lower employee turnover, advanced technical gains, employee psychological growth and upward mobility (Schwaller, 1980, p.323). Corporate philosophy often reflects a "hard-nose" business effort, with greater corporate earnings expected from these programs. In a world of rapidly changing technology, the industry-based technical training business has become a major enterprise.

Business and industry must respond to technical as well as social forces that act upon its community. Recent federal legislation has increased the handicapped individual's access to the labor market, and according to the 1980 census 5%, or 4.7 million, of the disabled are gainfully employed (cited in Miller, 1983, p. 1). The continued reduction in negative social stereotyping of the "handicapped" will result in many more productive handicapped employees being identified in business and industry. If industry's training programs enhance the corporate "bottom line", a reasonable assumption follows that training programs properly modified for handicapped persons will benefit both the employer and employee. This group of human resources cannot be overlooked in the design of industrial training programs if greater company profits are to be realized, and if the employee is to benefit by career growth, advanced skills, and job enlargement.

The purposes of this paper are to:

- Explore the scope of technical training offered today in industry, and the nature of the work this training supports;
- Explore the scope of vocational technical programs available to handicapped individuals, the governing policies, and program outcomes; and
- Identify useful linkages with the public sector.

A number of conclusions and recommendations for strengthening business and industry training are also offered.

Business and Industry Training: An Overview

Traditionally, business and industry training programs are organized in each company's human resources department. The programs range from college tuition reimbursement to internally-delivered technical and nontechnical courses. Watkins (1980) reported that $500 million are spent annually by the private sector on tuition reimbursement. Scott (1978, p. 36) noted that 45,000 individuals were full-time training staff members, and Grove (1984, pp. 93-96) reported that management is beginning to play a major teaching role in many industries. Corporations such as American Telephone and Telegraph (AT&T), Citicorp, Honeywell, and Chevron rely on heavily standardized, job specific training courses, including testing and extensive follow-up. Generally, industry designs and implements inhouse training programs to meet their own needs. Honeywell, for example, makes use of media, self-study material, and workbooks. This contrasts with the Hilton Hotel programs where all Hilton employees spend six weeks each year at a career development institute in Canada. While industrial and technical training are reaching new levels of growth and prominence, Doll (1980, p. 333) and Schwaller (1980, p. 323), indicate that industrial remedial programs are also on the increase.

Organized labor's apprenticeship programs are perhaps the oldest form of all technical training programs. Offered in the skilled crafts and industrial trades, these programs combine one or more years of on-the-job training with classroom technical instruction. However, it is noted that apprenticeship programs have provided very limited access to special populations in recent years.

The Workplace Revolution

These unprecedented levels of commitment to technical training have been spurred by the rapid deterioration of American industry in the national and international market place. The industrial environment and the work conducted therein are rapidly changing. A report by The National Center for Research in Vocational Education (1984) characterizes the new workplace with all employees having new, significant opportunities for: (a) job enrichment, enlargement, and crosstraining; (b) sociotechnical design of high technology integration with people and machines; (c) participative management, flat organizations with flextime and flexible benefits; (d) workplace democracy, quality circles, and team building; (e) monetary incentives, union train for pay plans, profit sharing; and (f) statistical process control to name only a few (p. 4). This reversal from the scientific management philosophy of the 1940s and 1950s in which labor was sharply divided into the smallest incremental tasks, has its roots in our democratic principles. Throughout industry, the workforce is demanding a higher quality of worklife to gain a sense of purpose and self-worth. In the 1970's, industry faced negative productivity factors, high inflation, soaring product costs, unemployment, and a quality crisis. Consequently, management has launched organizational changes and training to positively affect profit, as well as to support the quality of worklife principles (National Center, 1984, p. 12).

Industries cited in The National Center Report identified common training themes and employee needs: problem solving, communication skills, team work, statistical process control, group process, and solid basic education (pp 55-84). Karabatsos (1984) suggests that appropriate training goals for today's environment include increased employee versatility, reduced machine (process) maintenance, limited supervision, and reduced downtime. Suddenly, the production worker's job shifts to broader work that requires higher level mental processes, jobs where greater ambiguity will always be present, and therefore, the process required to obtain answers must be learned.

Today's production worker needs to understand and function within larger production units. Many technical employees manage the production flow from inventories across multiple processes, maintenance, tool changes, set ups, purchasing direct and indirect materials, and interfaces with vendors and the production customers. Often the employee will be called upon to sample, calculate, and document statistics on critical product characteristics to ensure that all processes are controlled. These changes in the basic industrial structure gave rise to comprehensive corporate programs in quality control, excellence in manufacturing, and maintenance of zero inventory. These efforts have come to be known as the "quality movement" (McCarthy, 1984, pp 20-27). Conseouently, the work has gone from machine or process operator, and/or assembler, to work requiring constant decisions, data analysis, and broadened responsibilities.

Programs for Handicapped Employees

Much has been written on federal laws that assure that handicapped persons will have equal access, equitable treatment, and reasonable accommodation in the workplace. Most companies have documented and published policies that express their firm's direction and degree of commitment. In a study of 915 federal contractors, half of the firms had at least one person responsible on a 51-100% time basis for assisting their handicapped employees (Berkeley Planning Associates, 1982, p. 3).

Although laws such as Section 503 of the Rehabilitation Act regulate the company's equal opportunity and affirmative action programs, individual companies must plan and undertake the actual implementation of these efforts. Rabby (1983, p. 27) suggests that hiring and training of handicapped employees should be a part of the line manager's performance review. This structure would be one factor determining a manager's yearly salary increases. Both Rabby and the Berkeley Study note that the major key is training nonhandicapped managers and supervisors toward adopting open and unprejudiced views of the handicapped individual.

A recent review of the current literature reveals that education and training programs in industry are almost always associated with some agency or government program. A national survey by the American Institute, 1981 (cited in Phelps and Treichel, 1982) indicated that over 75 companies revealed that they were involved in some kind of linkage program with education. Programs cited in the literature review were primarily supported by agencies such as vocational rehabilitation, the Jobs Training Partnership Act (JTPA), or the Projects With Industry (PWI). These programs tended to stress entry-level skills development, actual work experience, and integration with nonhandicapped co-workers. Several of the programs reported job placement success and cost effectiveness in their follow-up studies. In contrast, the literature focusing on programs in industry designed to enhance growth or work enrichment for employed handicapped, revealed few program linkages. Case studies of programs in various firms were common reporting methods in the literature. There was little evidence of regular follow-up studies or use of categorical comparisons of earnings, advancements, or productivity gains. In general, the literature was "company specific," and the reports highlighted the electronics and communication industries.

Entry-level Training

Among the business and industry training programs emphasizing entry-level skills and providing unique experiences for handicapped persons were those sponsored by: International Business Machines (IBM); McDonalds Corporation; the Midwest Association of Business, Rehabilitation, and Industry; Pennsylvannia Power and Light; and Motorola (now Quasar). Other programs of interest are conducted by the Electronics Industries Foundations, Control Data, and Lift, Inc.

International Business Machines' (IBM) programs were all well documented. This organization has initiated nationwide computer programming training targeted for the physically, visually, and hearing impaired. One such program at the Maryland Rehabilitation Center, graduates 17 students each year with a 90 percent placement rate (Taymans, Guenin, & Hill, 1983, p. 9). The Berkeley Study report (1982) indicates that IBM has also initiated a work experience program with the National Institute for the Deaf and Gallaudet College (pp. 43-46). Both programs use the internship concept after the completion of 9 to 10 months of classroom training. Campbell and Kaplan (1980) state that the key to the success of these programs was the team work of the Business Advisory Board initiated by IBM. Also vital to their success was the training identified to meet local labor market demands--an advantage to obtaining placement. A follow-up study revealed that of 1,000 national graduates, 750 are employed. After two years of training, the graduates had attained skills comparable to individuals holding two-year computer science degrees.

McDonalds Corporation of Oak Brook, Illinois, trains and places the mentally and physically handicapped in fast food service occupations. McDonalds utilizes a job coach who provides 20 hours per week of on-the-job supervision at breakfast and lunch, classroom instruction, and evaluation. The trainees are paid and provided with meals and a uniform. Upon successful completion of work for two weeks without supervision, the trainee is offered employment. Chicago Services for Work and Rehabilitation and the Job Training Partnership Act are involved with McDonalds in this effort (Phelps and Treichel, 1983).

Projects With Industry (PWI), administered by the Rehabilitation Services Administration of the U. S. Department of Education was launched in 1970. Today there are more than 100 PWI projects nationwide. Often PWI programs includes involvement with the union, and operates with the following assumptions: (a) actual work provides the best arena for job preparation, (b) employers need help in hiring and training the handicapped, (c) employees can best define qualifications to design training programs, and (d) programs to employ handicapped individuals are in industry's interest (Mailandt and Howard, 1982). An exemplary PWI program is conducted by the Jewish Vocational Service and the Midwest Association of Business, Rehabilitation, and Industry. Recent placement data showed that 166 of 240 former trainees were placed in gainful employment, 93 percent had maintained employment after 30 days, and 87 percent were retained after 90 days. For each dollar of program investment (cost), the return on that value was calculated as $11.20. Motorola and Pennsylvania Power and Light also participate in PWI programs. Motorola offers employment alternatives such as job restructuring, modification, or flexibility. Pennsylvania Power and Light utilizes the on-the-job training concept (Mailandt & Howard, 1982, p. 156).

Serious shortages of trained technicians in the electronics field brought forth the need for specific training in electronics. The Electronics Industries Foundation (EIF) has over 300 member businesses nationwide. The EIF provides a central source of locating qualified handicapped workers and operates an employer information network on needs of the handicapped. According to Phelps and Treichel (1983), 1,965 job placements nationwide have occurred since 1977 through the efforts of the EIF (p. 4).

Life, Inc., a not-for-profit corporation located in suburban Chicago, cooperates with state and local vocational rehabilitation agencies, hospitals, and local colleges to locate candidates for a homebound, audio-visual program which provides entry-level training in computer programming. A contract with the industry to hire the trainee for one full year upon conclusion of the course is a key element of this program. Life, Inc. serves major companies such as Standard Oil of Indiana, 3M, Northern Trust, McDonalds Corp., Continental Bank, International Harvester, Metropolitan Life, and RCA (Phelps & Treichel, 1983, p. 3).

Education for Continuing Employees

The literature was analyzed to determine training modifications that were undertaken by business and industry to accommodate continuing handicapped employees. The review revealed a variety of support processes, training methodology, and follow-up results.

Dow Chemical and Lockheed Missiles and Space Company operate special programs for handicapped employees. Dow Chemical emphasizes retraining for those who have become injured on the job by providing tuition reimbursement. Dow has a special services program for hourly employees who need to keep productive and employed. Started in 1958, 2,800 employees have participated in the program. Special modified work is provided until the employee is rehabilitated back into the regular work mainstream. The current thrust is to phase out this program and develop alternative work in the "regular" departments. Dow Chemical's policy is to hire individuals at entry-level and train them for careers within the company (Berkeley Planning Associates, 1982, pp. 1-45). Lockheed has a similar program for employee growth after initial hiring. This firm "clusters" handicapped workers in close proximity and uses additional supervisors for individualized assistance (p. 60).

Other companies such as 3M, E. I. Dupont De Nemours and Company, and Tektronix, Inc. have internal support services and career education to enhance the handicapped employee's opportunities. According to Mailandt and Howard (1982), 3M is staffed with a licensed psychologist and rehabilitation specialist to aid their employees directly. The Dupont management team regularly asks questions about the career development of their handicapped employees. The firm also allows more time at job orientation, adheres to a precise job description, and offers a career exposure program to related tasks and jobs. Tektronix focuses their efforts on enabling the employee to do the job, then increasing the employee's capabilities to do the job (Berkeley Planning Associates, 1982, pp. 1-45, 119).

The literature on programs at IBM, and Merch, Sharpe, and Dohme, highlights the importance of job redesign or restructuring in the process of hiring handicapped individuals. IBM has learned to start the handicapped employee on second or third shift for job redesign considerations and to allow flexibility in work as well as learning. Each employee's personal development is reviewed annually to determine progress and personal development needs (Berkeley Planing Associates, 1982, pp. 46-48). Merch, Sharpe, and Dohme report success with job design procedures, but note that this must be done on a case-by-case basis with approval by the union--which has proven diffiult. In some cases, handicapped employees are granted "superseniority" and immunity to "bumping" as experienced by other workers (pp. 81-82).

The Berkeley study indicates that the accommodations are usually simple, inexpensive, done on a case-by-case basis, and often involve co-workers in identifying the need. Common modifications used in training and work are Braille manuals, talking terminals, superphones, sign language courses, captioned media, and magnified computer screens. IBM has employed summer interns to read memos to visually impaired employees.

Some reports suggest that much of the difficulty is associated with educating nonhandicapped employees. Tektronix and Hewlett Packard illustrate two nontraditional ways to work with their management. Tektronix uses "creative problem solving" to address training and development issues for handicapped employees. Hewlett Packard employees meet and discuss the needs of recently employed handicapped persons. The value of effective management training was stressed in each case study identified by the Berkeley Planning Associates.

In summary, companies with training programs serving handicapped individuals appear to focus primarily on job specific training and meeting local labor market needs. Support and training are often provided on a case-by-case basis, and several major companies have developed "special" internal programs. In several instances these programs are linked to public programs such as those sponsored by vocational rehabilitation or the Job Training Partnership Act. There was little information to suggest that work enlargement was a significant goal of training and development programs for handicapped individuals.

Agency Linkages

The language and intent of the new Carl D. Perkins Vocational Education Act and the Job Training Partnership Act reflect a full range of programs and services that go beyond training for entry-level skill development. In his prepared statement (1984) before the House Subcommittee Hearings, Gene Bottoms, former Executive Director of the American Vocational Association, identified the priority of public vocational education programs for developing an individual's "capacity for continued learning that is necessary for advancement" (p. 13). The new Perkins Act places an important priority on a closer linkage with industry, as well as, focusing on adults' needs to not only enter the labor force but to advance in employment (Hearings before the Subcommittee on Elementary and Secondary, and Vocational Education of the Committee on Education and Labor, 1984).

Tindall, Gugerty, and Doughtery (1983) emphasize the important theme of the Job Training Partnership Act (JTPA) which stresses the importance of private sector involvement in operating public-sponsored job training programs for the unemployed and disadvantaged. Local Private Industry Councils made up primarily of private sector representatives, educators, and other special representatives determine the allocation of the job training funds and approve all of the programs. Approved activities focus on entry-level but extend beyond the transition stage to: job counseling, supportive services for retraining, OJT/work experience, upgrading, and follow-up services (pp. 4-17).

Although vocational education and JTPA programs are intended to be coordinated at the local level, often there are serious shortcomings for the handicapped trainee or employee who wishes to participate (Leconte & Kockhar, 1983, p. 24). Although the intent of Federal legislation is to increase opportunities for employed and unemployed handicapped persons to gain needed training, the key question is to what extent are these services actually implemented. These public-private sector initiatives need to be carefully monitored and evaluated to ensure that their intent is achieved.

Conclusions

Despite the influence of federal legislation and efforts of the private sector, Razeghi (1984) reports that handicapped individuals are still experiencing depressed occupational opportunities. Less than half of this population is employed and most of them have annual earnings of less than $7,000 (p. 33). In instances where handicapped persons have received targeted training services and are absorbed in the labor market, systematic follow-up is difficult and often not attempted.

Education and training enterprises conducted by the private sector face a fundamental dilemma. Employers must honor the employee's right to either identify or not identify themselves as handicapped. Without a declaration from the employee, appropriate support services, training, and follow-up cannot be provided. The lack of opportunity to follow-up and provide continuing job development assistance could be a major factor in reduced earnings and advancement opportunities experienced by many handicapped workers.

With the advent of major changes in the workplace, the handicapped individual's opportunities may be further eroded by inappropriate entry-level training. Training programs that focus on the traditional "job" or "task" criteria are likely to leave the prospective employee lacking in the skills needed in the sophisticated and complex production work settings. New and continuing employees in technical industries need to carry out activities in work groups, problem solving, statistical process control, and other functions that reflect today's work environment. Activities that were once considered as successful standard production at job entry are no longer considered acceptable in the narrow scope of "job". In many firms, there is a high probability that these tasks have been absorbed into a broader work design. In these settings the handicapped employees could be unnecessarily driven back to low earnings and productivity without proper retraining and upgrading opportunities.

The dramatically increased complexity of work environments in business and industry changes significantly the complexion of what is considered "entry-level preparation" for any employee. Handicapped youth will experience further hardships in obtaining and maintaining employment if educators and training specialists do not carefully rethink and broaden the services that are provided in our nation's schools, community colleges, and technical institutes.

Recommendations

There are several recommendations that can be offered to strengthen the capacity of business and industry training programs to serve handicapped youth and adults. A number of these recommendations speak directly to the need for systematic coordination of private and public sector initiatives.

1. State and federal legislation focusing on employment and training must reflect the changing business and industry environment. Jobs, job descriptions, and boundaries between jobs are disappearing.
2. Targeted funds are needed for training follow-up activities to ensure that handicapped workers have opportunities for further training and advancement.
3. Private industry and advisory councils need to assist educators in translating the dynamic work environment into relevant education and training programs. They should help design instructional activities, co-teach in selected programs, and assist in evaluating participant's progress.
4. Federal and state legislation should include more aggressive provisions for coordinated employment opportunities and training linkages across all employment-related education and training programs.
5. Exchange programs should be established that enable educators and industry personnel to trade places and develop new program components or curricula through such experiences.
6. Teacher education programs for special and vocational educators should include courses in economics, finance, business administration, as well as extended internships in training programs in the private sector.
7. Initiation of drastic changes in public vocational-technical education programs to include:
   - less emphasis on specific jobs and tasks and greater emphasis on general "clusters" of skills.
   - machine and process maintenance skills.
   - problem solving and decision making skills.
   - basic process control principles.
   - small business management skills such as purchasing, productivity principles, and inventory management.

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Commentary: Business and Industry Training Programs

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Dr. Shaffer has provided a useful overview of the scope of technical training offered today in training, as well as the most publicized industrial training programs for disabled employees. Professionals and advocates will applaud the suggestion that the hiring and training of disabled employees should be a part of the line manager's performance review. Assuming the manager understands that this factor is related to his/her performance review, one would believe such an incentive would help to incorporate disabled individuals into the workplace.

Overall, Dr. Shaffer's recommendations are quite viable, and parallel the suggestions developed by other special and vocational educators concerned with vocational training for disabled individuals. Some key aspects of the recommendations include: (a) perform follow-up activities to make sure that individuals receive the training needed; (b) include business and advisory councils when developing education and training programs; and (c) develop and maintain aggressive provisions within federal and state legislation to coordinate labor, employment opportunities, and training linkages.

While this paper focuses heavily on technical skills training, it overlooks a vital step before the training phase. That is the attitudinal barriers exhibited by personnel and direct-line management during the hiring process. Often employers have discriminated against and discounted any value in the disabled person; have viewed the disabled as less productive and in need of more support; have had benefit programs which require individuals to repeatedly verify disabilities; and finally, have feared the disabled may be restricted by medical requirements and access to transportation (Vanderfoot and McCarthy, 1985). Ideas or recommendations for dispelling such attitudes would be invaluable from professional educators working within industry.

The issue of self-identification only appears to be a "problem" when Federal EEO reports are due. The EEO requires businesses to report the number of disabled individuals employed based on whether an employee discloses his or her disability. The "problem" of obtaining accurate figures when an individual decides not to identify himself is somewhat transparent. A good percentage of moderately and severely disabled individuals will probably (but not always) need assistance in job placement and training which means that they could be identified if need be. However, if a mildly disabled individual is able to organize and maintain employment without fanfare, who needs to know? Support services to any employee for job maintenance or the like could be individualized, voluntary, and advertised in a newsletter or flyers distributed with paychecks. Should any individual be failing in specific job skills, a support program becomes the key in providing remedial action to assist the employee in maintaining their position. This method diminishes the need for labelling, leaves the door open for the employee to voluntarily receive assistance, and requires that skilled trainers be available to assist with vocational or social skill deficits. Governmental reporting regulations would need revision, but the difficulties in doing so appears minimal.

Finally, Dr. Shaffer's focus on training within major corporations by-passes the largest employer in the U.S.--small businesses. From November, 1982, to October, 1984, small business-dominated industries added jobs at nearly twice the rate of corporate-dominated industries. (State of Small Business, 1985) Roughly six and a half million non-farm jobs were created by small business during this time frame. Markward, in an unpublished paper, found that small businesses appeared to be an untapped resource for handicapped individuals and vice versa; small businesses have been the largest employer and the disabled one of the largest unemployed and underemployed populations. Discussion of methods and problems of training in a small business environment would be extremely useful and beneficial for the field. Also, policymakers might consider the prospect of a tax credit for small businesses which independently sponsor a training program (not simply a job placement) targeted for the disabled.

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Chapter 6

Proprietary Schools: A Case Study

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Proprietary Schools: A Case Study

It is particularly meaningful for me to participate in a Forum at the University of Illinois dealing with the education and training needs of handicapped individuals. As a Control Data Corporation employee involved in expanding the use of computers for delivery of training and education, I am keenly aware of the history of the University of Illinois and Control Data in the development of PLATO. There is no question that PLATO is by far the most capable computer based education (CBE) system in the world and it is a unique opportunity for me to visit its birthplace.

Of even more significance is this opportunity to share a direction that instruction delivered via PLATO is taking that wasn't foreseen in the 1960's when the system was becoming a recognized and highly effective delivery medium. At that time, it wasn't realized that PLATO would make an even greater difference to the disabled learner than to the able-bodied. However, it has, and its true potential is still barely tapped. These new directions and opportunities are the focus of this paper.

Background

Control Data Corporation's experience in vocational education dates back to the early 1960's. The company is very much a child of the technology age. It was started in 1957 by Bill Norris, who is still chairman and chief executive officer, and a small group of experts in what was then a very primitive computer industry. Their idea was to capture the market for large-scale scientific and engineering computers--what would now be called the "super-computer" field.

In the early 1960's, there was a severe shortage of computer technicians. Those who could be found had received electronics training in the military or had been to a vocational school for two years. At the time, it was generally accepted that the training of technicians involved a minimum of two years of schooling. Even so, Control Data had to train its new hires for several more months, on company time, to equip them to do the job we needed to have done.

Based on the premise that nine months of training is adequate to learn the essentials of entry-level computer programming and computer maintenance, the company decided to start its own school. The school was called Control Data Institute (CDI). The school sought to offer students an opportunity to get started in a career in a minimum amount of time with maximal exposure to practical instruction. It offered competency-based training, and delivered technology-based skills which were needed in a rapidly expanding industry. As these training programs grew, the schools began to consider the question of "How should we be teaching these skills?"

The problems facing the educators at CDI were problems of productivity: less money to operate the school, more knowledge to deliver, and higher demands for consistent, quality instruction. Just as in business, the solution to many productivity problems is the application of technology. For this reason, at about the same time it was creating CDI, Control Data was developing its PLATO computer-based education (CBE) system which has become the centerpiece of a range of Control Data programs and businesses.

The CBE approach trains people to competency rather than for a set length of time. In that sense, it is a perfect match for vocational educaeducation, where the purpose is to deliver a skill or skills--no more, no less. It was also an ideal answer to the question, "How should we be teaching these skills?"; all technical training provided at our CDI's is delivered on PLATO.

A number of years ago the company adopted a unique business strategy: to address society's needs as business opportunities. We sought to offer *profitable* business solutions. Make no mistake--we're not a charitable organization; however, we feel there's more than one path to the bottom line. Control Data has chosen to get there solving needs instead of fulfilling wants.

An early component of this strategy was the establishment of programs with school systems in economically depressed communities. The quality of education in many of these communities was well below par, and such circumstances threatened to institutionalize poverty and underachievement among youth. An extension of this strategy was the establishment of proprietary training centers which came to be known as Fair Break Centers. In these programs the target population was older, generally in their late teens and twenties. Their needs were similar, however. Even though many of the students had graduated from high school, they lacked certain basic math, reading and language skills and certainly possessed some attitudes which would serve them poorly in society and the workplace. The burgeoning libraries of the PLATO CBE System provided the basics upon which several appropriate curricula were developed.

Among each of these populations were included students with deficiencies of physical or mental capabilities which some refer to as "handicaps". These conditions may have been developmental or acquired but they limited, to varying degrees, the amount of learning the individual could absorb, the speed at which it could be acquired, or the ways in which instruction could be delivered.

The next step with this population was to develop a training program and select a project to determine the feasibility of delivering training to people with a variety of handicapping conditions. As the first demonstration project, we chose to focus on severely disabled adults; those whose loss was so extensive that obtaining education or training at a traditional school or training site was not a viable alternative. This program came to be known as HOMEWORK. The thrust of HOMEWORK was to provide vocational training and independent living skills that would enable such individuals to obtain competitive employment.

Initially, we chose our own CDC employees, who, because of debilitating injury or illness, found themselves on long-term disability with no reasonable hope of returning to competitive employment. Of the group of twelve in the initial computer programming class, eight were able to return to work full-time (from their homes), and each remained on the job at least six months. Three are still employed with CDC and recently celebrated the fifth anniversary of their return to work.

This demonstration project experience convinced us that we had the resources which would enable us to provide training and employment possibilities to even the most severely disabled individuals. Since that time we have returned 25 CDC employees to work. We have also offered HOMEWORK training and placement service to other companies and agencies. The results have been extremely encouraging, yielding a 90 percent training completion rate and a placement rate consistently over 75 percent.

Since individualized training delivered to a student's place of residence is an expensive training alternative, CDC sought to develop less costly program models. One such option CDC has been pursuing is to form working relationships with various public and private organizations charged with providing services to people with handicaps. Some examples of these programs and their outcomes will be considered later in this paper.

The results of these demonstrations convinced CDC that educational services to people with handicapping conditions is a societal need to which we can provide useful services as a sound business venture. Thus, the Disability Services Division was established in early 1985, and we are finding many exciting opportunities for us and for those we plan to serve.

Definitions and Principles

As this point, it will be useful to establish several definitions and address some basic principles underlying the philosophies of CDC's proprietary school initiatives. Many of these principles also serve as a framework for other proprietary schools.

First, let's examine the distinction between education and training. Education generally refers to the process of introducing a student to new knowledge with the primary purpose of expanding his horizons and causing him to think. It is the form of instruction identified with the colleges and universities, and is identified with intellectual growth. The term training most frequently is used to describe the learning required for a specific occupation. Its aim is to provide and improve skills required to do a job more effectively. It concentrates mostly on "hows", giving little if any attention to considerations of "why" something is done in a certain way.

The term "proprietary school" is basic to our discussions herein. Control Data's schools are proprietary schools. A dictionary definition of a proprietary school is one that is privately owned and managed. It may also have exclusive rights to the curricula and courses it offers. Strictly speaking, any private school is proprietary, however, the description is usually reserved for private, for profit vocational schools.

Another important concept is that of "least restrictive environment". Bajan and Susser, writing in the November, 1982, issue of Exceptional Children, state that:

> Public Law 94-142 requires that children be educated in the least restrictive environment. As private sector providers read the regulations, this means educated to the greatest extent possible with non-handicapped children....Least restrictive environment is commonly defined as synonymous with public school class. (p. 209)

This introduces a dilemma of which we must be cognizant. David Audette (1982) observes:

> Even the best of private school environments may be rather artificial and closed compared to public schools. It may be difficult to measure the extent to which an individual student may profit from a mainstreamed situation, when the student has been in a private situation. A youngster who may demonstrate a certain amount of comfort and success with a population of all handicapped children may be operating in surroundings where the challenges do not reflect real world conditions. The problem of setting up optimum expectations and providing realistic challenges for a group composed solely of handicapped individuals is a common one. Such a predicament is unavoidable when a nonhandicapped population is not available to the student. (p.215)

Since many of the students to be educated or trained within Control Data schools do have handicapping conditions, the provisions of P.L. 94-142 gave cause to proceed carefully in the establishment of programs and services. In the program development process we concluded that we were meeting the intent of the legislation; there simply wasn't another viable program option available for the students we were serving.

Finally, the primary objective of these efforts is the preparation of handicapped youth for independent living. A key to achieving this outcome is securing competitive employment. If, as the U.S. Department of Education estimates, 70 per cent of handicapped youth graduating from our secondary schools have extremely limited training in vocational areas leading to competitive employment, and since more than 4,000,000 students are served annually under the provision of P.L. 94-142, (Mathematics Policy Research, 1984), the challenge to provide transitional programs is indeed large.

These definitions prompt a number of questions for our further consideration, the two paramount questions being:

1. Why do proprietary schools exist?
2. Why are transition-oriented programs for handicapped youth needed?

The Public Schools

A consideration of the public schools, their current conditions, and the effect on their total student population can provide insight into the special needs of the handicapped student. A multitude of reports and studies have been released in the last three years that clearly suggest our schools' performance has declined and that the nation's young people are not being given the education they need to cope in an increasingly complex and competitive world. Unquestionably, the capability of our educational institutions to provide quality education and training at all levels will be a major factor in determining how well the nation can compete in the world marketplace, as well as the extent to which employment and other aspects of economic well being and social justice are provided for all Americans.

It has become increasingly clear that the traditional methods of education demand high input of labor and cannot adequately deal with the problems at hand. No particular segment of the public education establishment can or should be affixed with blame for this decline. We simply have not responded to the great potential available today in the form of technology development and its applications to education practice.

Teachers have been increasingly required to attend to nonteaching duties in the present system. They have reacted to the conditions by struggling to retain some sense of identity and control over their professional lives. However, the traditional central role of the teacher in the classroom as a patient and tireless friend, coach, and advisor to youngsters has continued to deteriorate. The close relationship between teachers and students has been the strength of our public education system for many decades: Unfortunately, it has eroded considerably in recent years.

The urgently needed improvement in educational quality, productivity, and timeliness cannot be achieved at an affordable cost without the maximum use of technology in the teaching process. To date, schools have not made significant progress in that direction. To achieve that goal in a reasonable length of time will require substantial changes in the educational system.

Technology

Presently, the most comprehensive and widely used educational technology is the PLATO computer-based education. PLATO uses a variety of other media, including video and audio tapes, discs, slides, and digital inputs and outputs. It manages the learning environment and delivers high quality, diversified learning at significantly lower costs than traditional education.

The development of PLATO has been underway for more than twenty years. It includes hundreds of cooperative projects with universities, secondary schools, government, foundations, large companies, small companies, and individuals. As a result, a wide range of courseware is available consisting of 12,000 hours of lesson material in a broad range of subjects.

With the growing availability of computers in the public schools and resources such as PLATO, one might expect that applications of educational technology would be widespread. Unfortunately, that is not the case. In spite of the availability of complete curricula, most computers in schools today are being used almost exclusively as a supplemental device, almost as if they are nothing more than another form of audio-visual aid. They are simply being superimposed upon the traditional learning environment and are not helping to bring any real change to the labor-intensive instructional process itself. This being the case, the answer to the questions "Why do proprietary schools exist?" and "Why are transition-oriented programs for handicapped youth needed?" becomes quite clear: There is a need. Proprietary schools, such as those operated by the CDC, have emerged as important supplemental alternatives to public education programs. In such schools organizational, teaching, and technology applications can be readily developed, pilot tested, and offered to a wide range of students.

Control Data Corporation's Schools

This section will review some specific examples of schools and training centers that CDC has established, both for a general student population, and some examples that were developed exclusively for handicapped students. However, first a more detailed look at the educational use of computers is in order.

Despite all of the hoopla about computers in the classroom, most schools have only a few computers and the ones that are there, are not used very effectively. Over the past two years Control Data's response to this situation has been to design what we call a Model Education Center. Control Data's Model Education Center represents a systematic approach to the introduction of computers, computer software, and computer-based courseware into the learning environment. The model education center includes not only the conventional computer-aided instructional materials, but also advanced types of testing and evaluation of students and a record keeping capability. This is an important component because it relieves teachers and administrators of the burden of trying to track the individual performance characteristics of each child. The system also provides learning prescriptions for each child.

Our experience to date in nearly a dozen model education centers has shown that the training of teachers to understand and manage technology to its fullest capability is indeed a complex and time-consuming task. Although we prefer that the teachers would work in the model education centers under the guidance of the business sector, it is possible to perform this training function with the teachers still as employees of the school itself.

In the Model Education Center in rural Forest City, Iowa, 700 students are involved with computer-assisted and computer-managed instruction on a daily basis. In any given week, over 2,000 hours of instruction are delivered using a wide variety of computerized tools and staffing options. This system has been in place over two years now and we find that teachers, given a significant amount of training and coaching by Control Data in the use of PLATO computer-based education technology, are changing their methods of operation. They are adopting new teaching strategies. They find they have more time to deal with the individual differences of their students. There is a growing sense of excitement within the school about the use of the computer to energize the total curriculum. In fact, the students are becoming much more active learners than ever before.

CDC staff are constantly evaluating what is happening in Forest City. The entire educational community from elementary schools through the community college has made a commitment to the use of PLATO computer technology. They are working cooperatively to improve the productivity of the learners and teachers, bring down the costs, and produce the very best outcome they can for their children.

There appear to be three major factors which have helped accelerate the computer's penetration into schools. Rural schools are one of those factors. Dire consequences face rural schools as they compete for the services of fewer and fewer qualified teachers to provide math and science instruction to declining student populations. To illustrate the problem, in 1981, fewer than 300 majors in science and math education were enrolled in the University of California and the California state systems combined. During that same year over 2,200 openings existed for such teachers in California. That trend is worsening in California and across the United States. While it is bad for urban schools--it is a disaster for rural schools.

The Model Education Center can help solve this teacher scarcity problem. For example, we have signed agreements with four rural school districts near Duluth, Minnesota, and with the Duluth school district. Duluth provides on-line teacher assistance to these nearby rural schools which have access to PLATO via a mainframe in Minneapolis. This project affects about 12,000 students among the five communities. Duluth has on-line and off-line access and concentrates on math, science, and instructional management.

CDC has also made a major commitment to the public schools in Bloomington, Minnesota. Over the next five years, this school district of over 13,000 children will commit most of the teaching of science, mathematics, computer literarcy, and language arts to computer-based education. In the meantime, they will attack the problem of inefficient classroom processes by changing and adapting to the use of the computer in the ways suggested, across the multiple schools of that system. They will be attacking cost increases, setting higher goals for the students, improving the content of instruction, and learning more about each student.

Advanced types of computer-based testing are part of the Model Education Center concept. These testing programs measure a student's ability to integrate and deal with abstract concepts, measure basic changes in aptitude, and undertake a variety of computer adaptive testing techniques. Such testing creates the capacity to develop an individual learning prescription for each youngster.

Transitional Programs

The foregoing narrative has suggested that there is an alternative approach to transitional programs--that is to structure the instruction, its delivery, and reinforcement in such a way that the need for a special program is eliminated or at least substantially reduced. Note well that the model education centers do serve some students with physical or mental handicaps--but it doesn't matter! They receive instruction at a pace which permits mastery that will prepare them for postsecondary living, either to undertake gainful employment or to go on to further academic or vocational programs.

However, we realize that sweeping solutions will only come with time, and there is an immediate need for transition-oriented programs. As noted earlier, Control Data has training centers that have been operating with great success in economically disadvantaged locations. The Fair Break centers are directed at the 18-24 age group and form the basis for the training approaches the Disability Services Division has established with a number of rehabilitation organizations.

The goal of these centers is to prepare the student for competitive employment and independent living. This is accomplished by providing that training, and only that training, that the student needs to attain that goal. The coursework is prescriptive and mastery-based, thus assuring the efficient movement of the student through the course of study.

The program consists of the following components:

- Orientation - The student is introduced to the program and to the PLATO system, and an assessment of his training needs is begun.
- Educational Counseling - The instruction and counseling is an on-going support service to the student. It begins with the establishment of a training plan.
- Remediation Training - The initial objective for this training was to prepare the student for the GED high school equivalency examination. It is now also being used in the training centers to address any deficits in reading, language, or math that are determined during the assessment process.
- Coping Skills Training - Participants learn about specific skills needed to function productively in both their personal lives and in their jobs. Topics covered include employability attitudes, understanding others and yourself, communication skills, and overcoming self-defeating behaviors.
- Independent Living Skills - Participants are provided a selection of lessons from the three-course curriculum depending on their needs. The courses are: "Choosing a Lifestyle", "Getting Training & Employment", and "Developing Relationships".
- Job Search - Participants learn and practice job-seeking skills, identify job leads, and contact employers. Employment counseling assists participants in establishing their employment goals and in seeking an appropriate job.
- Job Placement - Under the direction of the job developer, participants search for appropriate employment. Retention services are provided to each participant after placement.
- Occupational Skills Training - The training centers offer a variety of vocational training opportunities depending on occupational needs of the geographic location, and the aptitude, interests and other capabilities of the student. Among the curricula available are General Office Clerical, Accounting Clerk, Bank Teller, Word Processing Clerk, Information Processing Specialist, Retail Sales, Automated Office Technology, and Digital Electronic Technician.

Interorganizational Efforts

CDC has undertaken two demonstration projects in collaboration with rehabilitation agencies. These interorganizational efforts have accelerated the development of the various CDC training centers. In the early 1970s the Rehabilitation Services Administration of the U.S. Department of Education established a program called Projects with Industry (PWI). Its aim was to foster cooperative efforts between public agencies and private companies to encourage employment of disabled individuals. Control Data first became involved with PWI in 1979, forming a partnership with the Sister Kenny Institute in Minneapolis, Minnesota. A PLATO-based training center was established in their Occupational Evaluations unit.

The following year an even more extensive PWI program began at the International Center for the Disabled in New York City. Each of these rehabilitation facilities offer remediation and clerical training courses, which they have integrated into existing training and placement programs.

The results of these programs are impressive. Approximately 140 students who go through the programs of these two agencies are placed each year. The cost per placement to the Rehabilitation Services Agency was only about $600.

Concluding Comments

The educational training centers developed by CDC in recent years are showing impressive results. However, they all are fairly new and no statistically conclusive data is yet available. The interim results already suggest that computer-based education offers an array of valuable outcomes for handicapped youth and adults. Undoubtedly, Control Data and other private educational organizations will continue to develop and market programs that provide disabled individuals with skills that will enhance their ability to obtain competitive employment.

With 80 percent of disabled individuals either unemployed or underemployed, it is critical that effective training strategies continue to be developed and delivered to prepare disabled individuals for competitive employment. Proprietary educational organizations like Control Data view this situation as a vital area of societal needs, and will continue to aggressively implement training and rehabilitation strategies that will address the need in cost effective ways.

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Commentary: Proprietary Schools: A Case Study

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Historically, proprietary schools have served as a viable alternative to the traditional curriculum offered by the public school system. A program such as the Control Data Corporation's "model education center" which utilizes computer-based instruction, evaluation and testing, and record keeping, shows considerable promise for enhancing educational opportunities for all students. In choosing such an alternative, handicapped individuals need to assess carefully the potential benefits they would receive from such programs--job placement, tuition, follow-up services, and retraining are among the important facets to consider. Financial assistance eligibility from vocational rehabilitation or other governmental agencies is also a determining factor. These are just a few concerns and variables that students and their parents have to weigh in choosing a program.

Control Data Corporation and other proprietary schools need to make known their unique programs and services. Since they are private and for profit organizations, they must take it upon themselves to provide pertinent information to educate potential consumers as to the benefits of their particular program. This can be accomplished by developing more extensive and systematic contacts with the public schools, professional organizations, advocacy groups, and service organizations that deal with training and employment of handicapped youth.

Control Data Corporation has entered an exciting arena in the development of computer-based education (CBE) which opens new horizons for the handicapped individual. CBE provides expanded and more marketable employment options for these individuals. Competency in computer usage will definitely be an asset to handicapped youth as the use of computers becomes more commonplace. Those who are not "computer literate" will be even more handicapped. It is encouraging to witness that the wave of technology that has encompassed this century is beginning to flow in the direction of aiding handicapped individuals in the job market rather than washing them away and abandoning them on the shores of obsolescence.

As the computer works its way into the classroom--it also enters vocational training sites. CBE can be a useful tool in the vocational training of some handicapped individuals. This concept promotes both independence and individualized instruction. CBE is a relatively untapped resource that should not be overlooked in the training process for handicapped youth. However, it is not for everyone and caution should be taken in prescribing a CBE program.

Proprietary schools are as diverse in their purpose and curriculum as public schools. CDC appears to be unique in its focus on education and training for handicapped individuals. The teacher education aspect of this program is also commendable. Instructing teachers to use the computer effectively with the students is necessary to receive the maximal benefit of both technology and instruction.

Computer "imagination" is the ability to extend oneself to do something that could not be done before without the use of a computer--not just automating what is already done. CDC appears to incorporate this view in their training. With this philosophy they are pioneering innovative ways to use technology to benefit the handicapped that will result in gainful employment.

While their basic mission is somewhat different, perhaps the public schools can learn from the proprietary schools the importance of a business-like attitude in the training of handicapped youth. Greater efficiency in the training process would be cost effective, and may result in a greater number of job placements for handicapped individuals.

Chapter 7

Higher Education

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Higher Education

Author Gail Sheehy, in her best-selling book Passages, suggested that life is a series of passages, counterpointing the development of our personalities throughout life with the societal expectations of individual performance during a given life phase, i.e., the twenties, thirties, etc. Successful "passage" connotes completion of an established goal within a life segment, e.g., graduation from college and establishing a career in the early twenties; purchasing a home and beginning a family in the early thirties, etc. Passages may be of major importance within an individual's life span, or merely a transition from one phase of life to the next.

For most of us, the life transitions we experience are made with relatively minor adjustment(s). However, for some individuals transitions can be difficult and troublesome to complete. A group of individuals who are especially vulnerable to difficult transitions are individuals who are identified members of special population groups, i.e., the specific population focused on in this paper--persons with disabilities. Although there are many recognized service providers who suggest and provide supportive services and resources to individuals identified or labelled as handicapped, the quality and effectiveness of services for the transition process remains suspect in terms of quality. This is evidenced through the lower status of handicapped individuals in our educational systems, in their limited employment opportunities, and in basic societal attitude biases toward disability generally.

National reports on the status of secondary schools (Education Commission of the States, 1983; National Academy of Sciences, 1984) indicate an immediate priority for drastic reforms in high school curricula. Both reports urged schools to focus on providing basic and employability skills along with some vocational experience(s) which will enable youth to make a smoother transition to employment or further education following high school. Reflecting these report findings, Will (1984) reported that an estimated 250,000 to 300,000 youth leave special education programs--through dropping out, completing graduation requirements, or reaching their state's maximum compulsory age for handicapped youth attending public school. Employment and postsecondary opportunity for these youth appear severely restricted. Further, the National Center for Educational Statistics (1984) reported startling figures reflecting a decline in the proportion of students graduating from high school. The percentage of 18 year olds graduating from high school fell from 75.7% in 1970 to 71.7% in 1981. This trend is occurring during a time when a high school diploma has become increasingly important in entering the workforce. Approximately 1.1 million high school age students fail to graduate each spring with their age peers.

While this information about our educational systems is disturbing, the data describing the employment problems are equally distressing. Gentile (1977) suggested that of 30 million individuals with disabilities in the U.S., potentially 11 million are employable and yet less than 4.1 million are employed. Will (1984), citing data from the U.S. Commission on Commission on

Civil Rights (1983) and the U.S. Bureau of the Census (1982), documented that between 50-80% of the working age adults who reported a disability were jobless.

Data are equally distressing relative to earnings. Gentile (1977) has reported most of the disabled actually employed are underemployed, working in jobs below their skill or ability level, and often earning incomes that are significantly below the poverty level. Levitan and Taggart (1976) additionally observed that disabled males, when compared to able-bodied peers, earn 20% less in both wages and salary.

The underemployment experienced by individuals with disabilities may be reflective of a lack of understanding by employers, negative attitudes of the work place, and/or the perceived limited capability of individuals with disabilities to make complete and successful transitions. In considering the apparent difficulty of making an effective transition from secondary educational settings for disabled youth, one has to consider the postsecondary educational options and their availability to adequately serve this special population group.

Historically, postsecondary educational settings (e.g., community colleges, vocational-technical training programs, colleges, or universities) have demonstrated reticence in accommodating the needs of individuals with disabilities attempting to enroll and participate in programs. Rusalem (1962) described an early study by Gitnich which substantiated a lack of response to the needs of students with handicaps in a postsecondary environment. Gitnich (1944), having surveyed 320 institutions of higher learning, found they were highly selective in the type and degree of handicapped student considered admissible. In addition, few of the colleges and universities provided adequate facilities or ancillary services. Prior to the early 1970s, handicapped advocacy precipitated little attention and few crises, so education felt little impetus to change (Lynton, 1973). A student with a handicap, if admitted to a postsecondary institution either adapted to a barrier filled environment or departed from that environment. When early dropouts occurred, the college or university personnel felt little guilt or surprise regarding that action. The atypical individual had been "accepted" and it was his/her responsibility to "fit in." The inability to make this occur was generally perceived as student failure, not an institutional one. By structuring the burden of failure so it was placed with the individual with a handicap, postsecondary institutions felt no responsibility (Malikin & Rusalem, 1972).

In recent years, substantial progress has been made in providing postsecondary, including higher educational opportunities, for handicapped individuals. Studies have shown increased concern relative to accommodating individuals with handicaps (Condon, 1951; Condon & Lerner, 1955)

As we consider equal access to education, there are several barriers and inhibitions to be considered (Fasteau, 1980): (a) lack of understanding concerning the needs of handicapped individuals, (b) negative attitudes and preconceived expectations held by educators, and (c) the propagation of stereotypic labels. Use of the term handicap presupposes there are concrete things called handicaps and that people we call handicapped possess characteristics distinguishable from other people. Most of the legal enactments and decisions use this same assumption and accept "handicapped/non-handicapped" as a precise, objective categorization (Burgdorf, 1983).

Educators and psychologists use the term "self-fulfilling prophecy" to describe a process whereby stigmatizing labels tend to conform to the expectations created by those labels (Rosenthal & Jacobson, 1968). This effect is magnified when there are practical applications.

An important element in delineating who is or is not handicapped is social judgment--a person truly qualifies as being handicapped when labelled by others (Bartel & Guskin, 1971). Regardless of the application of the label "handicapped" by a person or entity in a particular instance, a strong societal value judgment is apparent:

> What is distinctive about and common to all handicapped individuals is not so much their own characteristics as the characteristic response of others to them. A handicapped person is someone whom others think is incompetent or unattractive, someone who others want to help or protect or avoid. Physicians, psychologists, educators, and rehabilitation experts merely rationalize and institutionalize the layman's pity and antipathy. That is, professionals create terminology, organization, and treatment patterns which foster and stabilize the distinctive status relationship between handicapped persons and others. (Bartel and Guskin, 1971, p. 75)

Continuing, the social judgments drawing the line between normality and handicap seem equally arbitrary, i.e., how much motor limitation constitutes an orthopedic handicap, how much visual loss constitutes a visual handicap, how much hearing loss constitutes a hearing handicap? The posting of a social definition then gives clarity to the impact of labelling:

> What is a handicap in social terms? It is an imputation of difference from others: more particularly, imputation of an undesirable difference. By definition then, a person said to be handicapped is so defined because he deviated from what he himself or others believe to be normal or appropriate. (E. Friedson, 1965, p. 72)

Albright and Phelps (1977) noted that educators traditionally use labels that are frequently based on a medical mode. Terms such as "handicapped," "disabled," "limited," or "deficient," frequently work to the detriment of the labelled individual. Labelling tends to create over-generalization and the assumption that the cause of the learning/ teaching problem resides with the student. This assumption has given atypical individuals the characterization of having implicit deficits and liabilities (Fasteau, 1980). Negative attitudes are rationalized then with this characterization and educators believe these atypical students cannot achieve.

Disability in Postsecondary Environments

Fonosen, Arany, Lee, and Loving (1982) noted that while the number of disabled persons enrolled in college programs has increased over the last decade, efforts to involve disabled students in a total career education process have been sorely lacking. To encourage more disabled students to enroll in postsecondary programs, they suggested that institutions strengthen their efforts in the following areas:

- Remove architectural barriers.
- Identify the career education needs of disabled students.
- Train career counselors to assist disabled students.
- Design innovative approaches for meeting the career preparation needs of disabled students.

Since shortly after World War II, the importance of ancillary support services to facilitate accommodation of individuals with handicaps in postsecondary institutions has been recognized by leaders in the rehabilitation field. The University of Illinois at Urbana-Champaign, through enlightened (or conscience-directed) administrative leadership, founded a sophisticated program centering around a disabled students' center and special on-campus transportation facilities (Rusalem, 1980). While this pioneering effort has long been available as a model for other institutions, similar changes in other universities have occurred very slowly.

Spurred by legislation, a revolution is occurring in postsecondary educational opportunities for individuals with handicaps (U.S. Department of Health, Education and Welfare, 1977). Postsecondary ancillary services for handicapped students are still in a state of flux, and additional innovative programming is being introduced annually. Unresolved problems, however, continue to confront institutions of higher learning, including:

- Overcoming faculty resistance to atypical students requiring special interventions.
- Reducing prejudice among the general student population, as well as the community housing the institution.
- Maintaining costs of special programs and ancillary services with the current austerity budgets.
- Providing more relevant career education and vocational rehabilitation enabling handicapped individuals to select realistic vocational goals.
- Extended medical and/or health problems.

When further considering the functional implications of these five problems the commonality reflected in each is the negative attitudes pervasive in our society. The admiration generated for the image of perfection (i.e., the use of "high fashion" models and "glamorous" Hollywood stars as role models) encourages us to reject anything or anyone who is "different." The fear and rejection of what we don't understand or know from our personal experience fosters the formation of negative attitudes by the time youth reach adolescence. Professors who have never had a student with a disability in a class situation and are suddenly confronted with the potential, presume that different grading criteria, different and more specific preparation, and the student's likely inability to perform with peers are circumstances that will impinge on their normal work load. Occasionally, this potential can create an even more negative attitude before the professor/instructor even meets and talks to the student (with a disability). Roommates who walk into their assigned rooms may have difficulty hiding the shock, dismay, or, unwillingness to room with a roommate who has a disability. An often immediate reaction is to ask for reassignment, and in the interim avoid their living situation as much as possible, creating a more defined feeling of objection and confusion. This unwillingness to expose oneself to a possible positive learning experience, as well as possibly forming a new friendship, only reinforces negative attitudes and preconceptions about disability.

The potential for one-on-one education to resolve negative attitudes at professor-student and roommate-to-roommate levels is substantial within both the general university community and the community where the educational institutions is based. The university community must assume fiscal responsibility, and for extensive full range ancillary services, the budget required is significant. Issues requiring large dollar commitments range from interpreters (for hearing impaired) to production of adaptive materials (for visually impaired) to transportation issues and services. Although the "technological revolution" of the 1980s represents significant advancement in providing ancillary service and allowing the individual with a disability to more easily interface with higher education environments, it represents an even greater financial burden to those assisting the physical accommodation and programmatic accessibility issues.

These and other factors impinge to varying degrees (in individual cases) upon learning potential and/or performance. The potential impact may not be recognized in the educational mainstream (i.e., a postsecondary educational institution). Special learning problems of students with handicaps (i.e., uneven academic performance) may be overlooked or misdiagnosed as emotional instability or maladaption (Gearhart, 1973). These learning variables can be further influenced by programmatic and procedural barriers.

Legislative Mandates Effect on Higher Education

The advent of P.L. 94-142 (the Education of All Handicapped Children's Act) and P.L. 93-112 (the Rehabilitation Act Amendments) have been a legal extension of the principle of egalitarianism. Many professionals, especially educators, have strongly espoused this egalitarian principle for handicapped individual through normalization. With mandated equal opportunity being available, the number of individuals with handicaps enrolling in postsecondary educational programs has steadily increased since the late 1970s. This trend stimulates several significant questions as we consider accessibility to and accommodation for equal educational opportunity:

- Which handicapped groups are enrolling in postsecondary institutions?
- What is the nature, extent and quality of ancillary support services available to them?
- What problems and barriers do handicapped individuals encounter in making their transition from secondary schools?
- To what extent are postsecondary institutions developing programs to accommodate handicapped students pursuing curricular interests in the mainstream?
- If a handicapped student begins his/her postsecondary career at a community college, how well do they transition to a four-year institution?

- How well do postsecondary graduates transition into the workforce and the career of their choice?

While research interest in this area has been growing in the past few years, the legislative impacts of equal opportunity in educational areas is so recent that little data or literature exist specifically addressing individuals with handicaps, especially in postsecondary settings.

The two pieces of legislation enacted in the early 1970s mandated equal access to education, as well as equal opportunity in employment. The phrase "reasonable accommodation," which most frequently guides the actions of an institution or an employer, was the essence of these pieces of legislation. The most identifiable response by society to the Rehabilitation Acts and this phrase "reasonable accommodation" was in visible physical accommodations such as elimination of barriers and creation of functional accessibility for mobility impaired individuals. Currently, most educational institutions would consider themselves accessible based on having met the minimum physical accessibility standards. Of greater consequence to successful transition and integration processes for handicapped individuals is programmatic accessibility which can provide education that will help change the pervasive, basic attitudinal biases indigenous to our society.

Ancillary Services in Higher Education

Currently, one of the best analyses of ancillary services available to individuals with disabilities in postsecondary educational settings (i.e., community colleges, vocational training programs, colleges and universities) is Hartman's compilation, the Directory of College Facilities and Services for the Handicapped. The Directory contains information obtained from responses to a four-page questionnaire sent to all postsecondary institutions in the United States, United States' possessions, and Canada. Some excerpts of responses listed in the Directory reflect some of the most prevalent barriers relative to the handicapped in higher education environments: For example, "At the university, elevator controls are brailled and lowered, drinking fountains are lowered, telephones are lowered, bathrooms are accessible, reserved parking is available and there are power doors and ramps" (p. 147); or "The nature of the programs and career training do not normally attract handicapped students; therefore, it has not been difficult to provide special services for individual care;" (p. 199); or "The university will make reasonable accommodations for handicapped persons on an individual basis." (p. 147).

The initial response to the Directory information is that the legislative mandates of the early 1970s were indeed successful in developing accessibility and equal accommodation. Upon closer perusal of the data, however, some concerns become apparent to those who are ancillary service providers in higher education as well as to the consumer. For example,

1. Elimination of only physical barriers (using ANSI standards as minimum guidelines) may constitute the individual university's only commitment to accessibility and accommodation.
2. Due to minimal numbers of individuals with handicaps actually completing matriculation, institution administrators often assign

an individual counselor in a student services or counseling role to coordinate necessary support services to the disabled student on a demand basis. Most frequently, this individual has little or no training in rehabilitation and/or special education.

3. Preconceived notions of appropriate career options (suitable or achievable) for handicapped individuals allowed some institutional administrators to "justify" their unwillingness to comply to program accessibility standards.

With any one of these circumstances or a combination of them apparent in an institution's policy relative to individuals with handicaps, the individual with a disability may have a difficult transition to higher education; and in the extreme, the inability to complete postsecondary schooling.

In reviewing the entries in the Directory, one quickly finds that frequently the "contact" individual for many of the institutions is not a (rehabilitation) specialist, or even perhaps the individual responsible for providing ancillary services. Some of the more frequently delineated contacts are: Dean of Students, Director of Personnel, Chief Financial Officer, Affirmative Action Officer, or Executive Assistant to the President. Although this individual may serve only as the initial contact, responsible for referring the individual with a disability on to the coordinator of ancillary services, this initial contact may not accurately identify the available services or the limitations for accommodating the applicant with a disability. As one prospective student commented: "there is no method developed which enables one to have knowledge of every handicap" (p. 38). Another inhibitor which prejudices the student's potential enrollment based on expectation for support services, as well as success in matriculation, is not only the institution's delineation of "reasonable accommodation," but the contact individual's interpretation of said "reasonable accommodation." When determining necessary support services on an individual basis, immediate resources (monetary as well as personnel) may not be available to provide the level of assistance necessary to assure equal performance in the academic setting (i.e., reader service, interpreting service, daily living skills assistance, mobility assistance, repair and maintenance of special equipment, etc.). If the personnel resources should be available to meet the individual student's needs, who pays for the services, the student or institution? The high costs of maintaining ancillary services compared to the low matriculation numbers of handicapped frequently create major budgetary conflicts administrators must resolve in the attempt to maintain program accessibility within the legal and federal guidelines. This programmatic accessibility is frequently forfeited in favor of more visible physical accessibility issues.

Unfortunately, when the contact person and/or the coordinator of ancillary services has no training in a specialized field (i.e., rehabilitation and/or special education), the problems that arise or exist are often compounded by preconceptions about a disability and the possible specific skills of the disabled person (i.e., performance capability in an academic environment). In the name of accommodation, performance standards become altered which will most probably impact negatively not only future career development, but the individual's ability to compete in the "real world" with able-bodied peers. As an example, Stilwell (1981) in Barriers in Higher Education for Persons with Handicaps: A Continued Challenge reported a study done in Kentucky. Wanting to determine the degree to which Kentucky higher education was meeting the needs of its handicapped student population, a 23-item questionnaire was sent to its 57 institutions (public and private). Of the 57, 45 institutions responded. Of the responding schools, compilation demonstrated that 86.7 percent of the schools admitted all applicants regardless of disability. The majority of the schools responding reported using flexible admission policies, while about half demonstrated no written policy concerning students with handicaps.

Potential for Success in Higher Education

The recent testimony of Brian Charlson in an appearance before the Subcommittee on Select Education of the House Committee on Education and Labor (1985) describes some of the problems faced by disabled students wishing to pursue postsecondary education:

> Prior to my final year of high school, I attended a vocational evaluation program at the Commission for the Blind Headquarters in Portland, Oregon. I am sure, Mr. Chairman, you will be able to identify with my career goal. I wanted to obtain a degree in political science to prepare me to enter public service. The Oregon Commission for the Blind agreed to provide me with reader services, and I managed to pay my own tuition at a community college for the first two years of my higher education. I then transferred to Willamette University, a private school in Salem. It was the ideal classroom for me, since the campus was located across the street from the state capitol building. I also worked to pay part of my expenses at Willamette. By the time of graduating from college in 1978, I discovered I was ill-prepared to achieve my vocational objective. (exerpted portions of unofficial transcript)

"I was never advised" is a key statement appearing a few sentences later in Mr. Charlson's testimony and it reflects a major problem in secondary and postsecondary institutions. Individuals not familiar with functional parameters of a specific disability, cannot realistically advise and prepare handicapped students for their futures, i.e., career planning, job seeking skills and retaining employment through use of exemplary personal assets and abilities.

Flexible admission policies, instructors who alter specific curriculum components to allow a student with a handicap to complete given coursework, or the waiving of course requirements normally required by students to complete a major do not, in reality, help the handicapped student, but instead significantly impede their ability to identify and learn their own limitations, strengths, and weaknesses. Preconceptions relative to a disability significantly impact the advising which occurs (or does not occur) with handicapped individuals who are attempting to choose from among various career options. As with their able-bodied peers, disabled individuals need guidance in seeking a career which realistically matches their individual talents, attributes, and personal aspirations.

Imposed Societal Attitude Barriers

A major concern to disabled individuals, as well as many of the professionals currently serving in support service roles, is the continuing, strong attitudinal barriers that are perpetuated by society in general. The existing social barriers have long had a major impact on the educational process as it is structured for disabled students. As many leaders in the field of rehabilitation have suggested, accommodation and accessibility can be legislated, but modification of attitudes cannot. A major challenge to educators is developing the ability of people to look beyond the individual's handicap and recognize the individual, not the handicap.

This major educational thrust must effect all, including those who are handicapped. As Hammitt and Hammitt (1985) noted in their editorial in the June issue of Mainstream:

> While Gardner's statements were a slap in the face to all disabled persons, there are many disabled people who themselves subscribe to this viewpoint. Though they may not consciously think this way, their actions and attitudes show that they actually do believe at some deep level that they are somehow responsible for their own disabilities and that they are not as good as 'normal' people.
>
> When we are willing to accept the role of second class citizen, we are projecting an image of being unworthy of better treatment. Every day at college I see my disabled student peers knuckling under to the demands of a system which does not accommodate them. Often all that would be necessary to change the system is for a disabled person to speak up and make their needs known (p. 6).

"Projecting an image of being unworthy of better treatment." Frequently, this is the message a disabled individual has received throughout the development years. How can we effectively change programs and stereotypes to remove the negative attitudes and preconceptions relative to handicaps?

Again, from the editorial in Mainstream, Hammitt and Hammitt (1985) comments:

> Once one's disabling condition becomes familiar and understandable, the real battle begins. Reconciling personal needs with the handicapping barriers placed upon us by society and the environment is really more difficult than the physical impairment itself.
>
> Like everyone else (yes, even 'normal' people) we are often trapped by our own pride. I think the most difficult thing to do is ask for personal assistance from someone" (p. 6)

Clearly, the most significant barrier confronting the individual with a disability is the programmatic/attitudinal prejudice found throughout society. Modifying and/or eliminating the effects of these societal imposed barriers should be a major task of the educational process. All phases of school-to-work transition, if they are to be successful, depend significantly on the development of positive self-image by the disabled person, as well as open receptiveness by those individuals with whom the disabled person interacts including parents, peers, professors, and employers. Creating the ability for self-advocacy allows the individual with a handicap to continue the larger mission of educating others throughout his/her life.

Transitional Programs

In recent years there has been increased emphasis on transition programming between high school programs and postsecondary educational placements such as further academic education, vocational education, and employment. Effective transitional planning must involve representatives from schools, postsecondary institutions, community-based programs, as well as employers, parents, and students who can work together to plan services and options to address the needs of handicapped youth. Usually, five components are required to plan and implement transitional programs on a cooperative basis: (a) awareness among secondary and postsecondary educational institutions, and service providers of each others' programs; (b) specification of characteristics of postsecondary service providers or employers necessary for an appropriate employer/student match, (c) the exchange of names of potential clients between the schools and post-school agencies, (d) joint planning by school staff, parents, students, post-school agency staff, and prospective employers prior to transition; and (e) feedback from post-school settings to schools after placement (allowing schools to make changes in program format and content as needed).

Two models currently cited by the United States Department of Education (1985) for progressive transitional programming are located in Massachusetts and Delaware. Massachusetts enacted a statute mandating the formation of a Bureau of Transitional Planning in the Office of Human Services. This bureau will be responsible for ensuring that all handicapped students existing public schools and still requiring support services will receive services from the appropriate state agency. More specific policies and procedures are currently being developed. In the model program developed by the Delaware Department of Education, two significant factors surfaced: (a) vocational rehabilitation services personnel must work with special educators early in the student's secondary school career to identify and plan prevocational and vocational training services consistent with identified needs, and (b) create a mechanism to identify overlaps and gaps in available services among agencies in order to determine how their programs can be coordinated and integrated to best address the needs of handicapped students.

Summary and Conclusions

Since the late 1960s, completion of two- and four-year degrees has become increasingly important for achieving personal fulfillment and economic security for many of our nation's young adults. This expectation has increased the necessity for individuals with handicaps to also enter and function effectively in higher educational environments. The successful transition to postsecondary and higher education by handicapped persons requires social adjustment, appropriate educational and/or vocational counseling, self-advocacy skills, and an awareness of the need for balance in life.

As noted in this discussion, programmatic accessibility, which is dependent on open attitudes toward disability, is the most significant remaining barrier to be addressed. These continuing negative attitudes in society can most effectively be changed through educational processes. The two specific areas of education primary to creating the necessary attitudinal changes are: (a) training and encouraging professionals to be conversant with disability and the needs of individuals with disabilities, and (b) creating self-advocacy skills in individuals with disabilities. Further, this discussion has demonstrated the need for those coordinating and/or providing ancillary services in higher education settings to have appropriate professional preparation. Individuals with a disability can support their own continued growth and education relative to their disability and the accommodation(s) they require to be optimally functional and independent. Additionally, adequately trained service providers will be able to provide an appropriate level of support services based on individual assessment and assure full programmatic accommodation.

The individual with the disability is a major factor in positively impacting societal attitudes. The individual who knows his/her disability and its parameters can effectively communicate his/her needs and present a positive self-image. Unfortunately, the militant advocacy occurring during the late 1960s and early 1970s which precipitated the legislative mandates of P.L. 94-142 and P.L. 93-112 has currently fostered a sense of complacency among the disabled. Because these laws exist, individuals with disabilities expect accommodation, and if those expectations are not realized, often do not have the advocacy skills to create the additional changes and modifications that are required. Self-advocacy creates a more positive self-image, which, hopefully, facilitates the reduction of negative attitudes and traditional strategies.

Increasingly, higher education environments represent an arena which facilitates the transition from school to working life for handicapped youth and adults. In universities and colleges, the opportunities for successful transition are directly effected if the educators and professionals in these settings achieve the ability to work with individuals--viewing any differences or egocentricities as secondary to the individual student's personal and career goals. Until higher education programs are designed to successfully facilitate transition, movement through life passages may be incomplete or unsuccessful for the handicapped individual.

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Commentary: Higher Education

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Dr. Floyd's paper on Higher Education is primarily focused on: (a) barriers that hinder access of handicapped persons to higher education facilities and the potential problems faced by individuals who successfully enter those institutions; and (b) the need to eliminate those barriers and to ameliorate ancillary services for disabled students.

While great strides have been made by many leading universities and colleges in eliminating physical barriers (e.g., technological advances in mobility equipment, transportation barriers), there are a wide variety of less tangible impediments affecting the performance of handicapped students. Among the obstacles mentioned by Dr. Floyd were attitudinal barriers (which may include those held by the public, administrators, instructors, other students, or the handicapped students themselves), poorly-trained ancillary service personnel, and misplaced concern for disabled students. To illustrate this last item, a very interesting point was made that lowering standards (of admission or grading, for instance) in an attempt to help a handicapped student may significantly hinder their knowledge and acceptance of their own limitations, strengths, and ultimately their performance in the workplace. An important question can be raised: to what extent have studies been made (and is there a need for more research) to specifically identify those less tangible, nonphysical barriers that impede performance in higher education and successful transition into the workforce?

Another topic appearing in Dr. Floyd's paper deserving more attention by all is the self-concept of handicapped individuals. Developing a positive self-image is necessary for one to be an effective self-advocate. And self-advocacy skills are required to make one's needs known, to learn individual rights, and to express strengths and limitations--all necessary to achieve success in-school, work, and the transition between the two.

Dr. Floyd stresses the need for educational processes to reverse the negative attitudes held by much of our society against special populations. Two specific targets were cited: (a) training and encouraging professionals to be conversant with disabilities and the needs of disabled individuals, and (b) creating self-advocacy skills in disabled individuals. By achieving the second objective, those assertive individuals of the handicapped population carry out a mission of educating others throughout their lifetimes. Again, a question arises that is difficult to ignore: how should this training be accomplished and who should be responsible for it?

Admittedly, it is costly to provide significant programmatic accessibility and ancillary services for handicapped students. Yet, is there not some return on the investment for an institution to go beyond compliance with minimum accessibility standards to see that equal opportunity for a quality education is had by all? In more humanistic terms, Dr. Floyd put it well: "A major challenge to educators is developing the ability of people to look beyond the individual's handicap, and recognize the individual, not the handicap."

Chapter 8

Education and Training of Disabled Youth in Western Europe

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Education and Training of Disabled Youth in Western Europe

The issue of preparing all youth in-school for entrance to working life has gained great importance since the mid-1970s in Western Europe. Earlier, these countries had such low rates of youth unemployment and such ease in moving from school to employment, even for disabled youth, that they paid relatively little attention to the quantity and quality of the preparation in-school years for this significant step into adulthood. Physically, mentally, and socially disabled youth formed a highly disproportionate part of the small residue of youth unemployment that persisted even under full employment. Many European countries developed and strengthened programs to improve the education, training, and transition of disabled youth.

With the advent of high unemployment, deficiencies in the preparatory process became visible. Previously, under full employment, those deficiencies had been concealed by the strong demand for young workers. Therefore, programs to assist youth multiplied and new approaches were introduced. In the process, disabled youth became one among several categories of disadvantaged youth toward whom remedial measures were increasingly directed. However, the needs of disabled youth now had to be weighed against those of other needy youth; in the process, the resources devoted to disabled youth were relatively, if not absolutely, diminished.

Against this background, the paper first looks at the policies of the European Community (EC) toward disabled youth. Subsequent sections describe the programs for disabled youth in West Germany and programs focusing on education, training, and transition in Sweden.

Policies of the European Community

The countries of Western Europe differ from one another in regard to the education and training of physically, mentally and emotionally disabled youth, as they do on most other subjects. However, they have in common a commitment to programs for these groups. Some sense of the general attitudes and policies can be obtained from statements and activities of the European Communities (EC). The EC represents the large countries, West Germany, Great Britain, France, and Italy, as well as the smaller ones; the most important nonmembers are Sweden, Norway, Finland, Austria, and Switzerland.

Since 1974, the EC has been involved in programs to integrate the disabled of all ages into society and the workplace; in 1982 a Bureau for the Disabled was established to advance this objective. Estimates are that between 5 to 9 percent of the population of the EC countries are physically or mentally disabled. An EC statement in connection with the International Year of the Disabled cited the importance of beginning efforts in the early years of life:

> Such readaptation, however, is often only possible if the situation of the handicapped is taken into consideration at school or even before. It is both a question of keeping a close watch on certain specific groups and integrating them as much as possible in the normal school system, so that they do not feel excluded from society. (1981, p. 5)

Among initiatives taken at that time were the preparation of teaching action programs, studies and seminars on pre-school and school education and entrance to working life, and the provision of subsidies from the European Social Fund for vocational readaptation plans submitted by member countries.

The current Community action program gives priority to the promotion of the independence of the disabled in employment, housing, access, mobility, education, and training. In 1982, a large proportion of the 66,000 disabled persons benefitting from European Social Fund subsidies were young. The community also supports pilot projects for exchange visits by disabled youngsters across country boundaries. Studies have been undertaken on the impact of new technologies on the education and training of disabled children, and on the adaptation of vocational training courses for disabled youth to developments in the job market (EC 1985b). Guidelines on the employment of the disabled are in the process of being discussed; if adopted as directives, such policies become binding on member countries (EC 1984a, b, c, d; 1985a).

Apart from such general actions, EC has also dealt with disabled youth in its policies for unemployed youth and in programs on the transition from school to working life. The EC has listed physically, mentally, and socially disabled youth as one of the categories among disadvantaged youth, along with ethnic minorities; females; youth with low educational attainment; isolated, rural youth; or youth in one-industry areas. Although the disabled are always mentioned in EC declarations about youth requiring special attention, to date the specific suggestions and programs rarely make special provision for disabled youth (EC 1983). Among the pilot projects conducted in nine member countries as a result of the EC Council Resolution in December 1976, of those concerning measures to improve the preparation of young people for work and to facilitate their transition from education to working life, only 10 percent concerned disabled youth (EC 1980, appendix). The new round of pilot projects begun in 1983 has none for disabled youth.

The interim evaluation of the first round of pilot projects made a significant statement about the physically disabled:

> It cannot be ruled out that the reason why the planners of the projects offered little for these groups when the projects were set up, and why in the little that exists actions are not markedly different from those taken generally, is that the roots of the problem lie not in education but in society.... For the physically handicapped the major trend in education at the moment is to integrate them with normal students; apart from making particular practical provision for their physical deficiencies there seems to be little merit if any in treating them separately. Again the difficulties in transition occur when they enter employment; these are social rather than educational. (1980, pp. 170-171)

Although it is not clear that these views would extend to the mentally, emotionally, and learning disabled, the important point is made that for the mildly physically disabled, differentiated treatment is not required in education and initial training, except for certain accommodations to physical limitations. Moreover, no amount of special education and training can offset the barriers to equality in employment because factors other than the ability to perform influence employment. Currently, efforts are underway to engage employers' organizations and trade unions in the EC drive to improve the training, employment, and integration of the disabled of all ages.

West Germany

Like many other federal-type governments, West Germany provides in its Constitution that educational policy, structure, and planning prior to higher education are the responsibilities of the separate states and city-states. The Federal government's powers concern the issuance of framework regulations for higher education, the promotion of scientific research, and exclusive responsibility for occupational skills training and the nonschool portions of vocational education.

Cooperation on educational matters between the Federal and State governments occurs on the construction and expansion of higher education facilities, educational planning through joint federal-state commissions, and agreements tending toward standardization of the educational systems of the states in regard to structure, facilities, teaching content, and certificates or diplomas. Through these measures, West Germany has reduced the variability in its educational system and facilitated transfer of pupils moving from one state to another. However, policy on mainstreaming disabled children remains with the states.

Educational Structure

The structure of the West German education system is rigid and undemocratic, by American terms. Discipline and teacher authority are strongly embedded and performance standards are high in comparison with other countries. A recent statement by an Organization for Economic Cooperation and Development (OECD) Team of Examiners noted that the German educational system "retains some at least of the elitist and meritocratic divisions of the past, although they have been modified by a big expansion of higher and post-compulsory education and to some extent by easier movement between different educational channels" (OECD 1981, p. 119). Compulsory education ends at 15 in most states; a few have recently added a 10th year. Many pupils stay on for additional full-time education; since 1979, less than half of 15 year-olds have left after compulsory education. Part-time education is required until age 18.

By the end of primary school, at 11-12 years of age, German pupils have been assigned to three chief types of lower secondary school. The school to which a pupil is assigned for lower secondary education more or less determines the future course of his or her later life. The three- year *main* school prepares overwhelmingly for entrance to apprenticeship training for blue collar and service jobs; the four-year *intermediate* school is mostly for full-time, vocational education or white-collar and technical apprenticeships; and the seven-year *grammar* school is chiefly for tertiary education, especially at universities. Comprehensive schools, that is, the American model, have gained very little favor, enrolling about 5 percent of all lower secondary pupils. In 1983, 42.5 percent of lower secondary pupils were in the *main* schools, 27.9 percent were in the *intermediate* schools, and 29.6 percent in the *grammar* schools (BW 1984, no. 10/11, p. 175).

The education of many disabled youth is provided by the special schools which enroll those youth "with physical, mental, psychic, or social handicaps who cannot be taught with adequate success at regular schools" (p. 175). There are special schools in parallel with each kind of regular school from primary through upper secondary education. Handicapped pupils are disproportionately in special main schools, at the lower secondary level, with underrepresentation at special intermediate and special grammar schools. Organizationally, the form of special schools varies according to local circumstances and the type of disability. Separate institutions or classes for the disabled that are attached to regular schools are the most common form. Disabled pupils may have normal school hours (half-day), a full-day, or boarding facilities. In all, there are 10 different types of special schools. With the exception of those serving the learning or mentally disabled, all special schools use the same curriculum as regular schools, although teaching methods are modified in accordance with particular needs. Teachers for these schools receive additional education and training. The teacher-pupil ratio has steadily improved in the special schools. Starting in 1960 with 20.5 pupils per teacher, the ratio descended to 7.6 in 1983. By comparison, the ratio in the regular primary and main schools dropped from 36.7 in 1960 to 19.1 in 1983 (BW 1984, no. 10/11).

Educational trends do not suggest much progress in mainstreaming disabled youth since 1960. Pupils in the special schools constituted 3.2 percent of the total in all schools through upper secondary education in 1960 and 2.6 percent in 1965, but during the 1970s and early 1980s, the proportion ranged from 3.6 to 4.0 percent; forecasts for 1984-1995 indicate that the percentage will rise to 4.1 percent (BW 1984, no. 10/11, p. 175). However, a rising proportion is not proof that mainstreaming advances are not being made, since it is possible that the special schools are drawing in categories of youth who previously did not attend school. That mainstreaming is not proceeding rapidly also is suggested by trends in the number of special schools. Special schools rose from 3.1 percent of all general education schools to 10.6 percent from 1960 to 1980 (BW 1984, no. 10/11, p. 173). It is, of course, possible that smaller units account in part for the rising share of the special schools.

One of the explanations of the relative increase in disabled pupils and special schools centers on the influx of foreign-born children since the 1960s and births to foreign parents employed in Germany's "guest worker" program during years of labor shortage. Although some of these workers have returned home since jobs became scarce, many more have remained and these families have a much higher birth rate than Germans. An issue that has appeared in West Germany, as well as in other European countries, is that children of "guest workers" have been disproportionately and unfairly assigned to slow learner classes or special schools simply because they have difficulty with the host country's language. The German data are inconclusive, since children of foreign parents constituted a slightly higher proportion of primary (14.1) and of main school pupils (13.1 percent) than they did of pupils in special schools (11.2 percent) in 1982 (BW 1984, no. 10/11, p. 151). The Federal Government has established and financed projects in the states to develop refined diagnosis processes for assigning foreign children to special schools as well as improved courses and teaching methods (BW 1984, no. 7, pp. 99-100).

The outcomes for disabled pupils in lower secondary special schools have been a source of concern. A satisfactory conclusion of compulsory education requires pupils to pass examinations and thus earn a school-leaving certificate. Since the leaving certificate is valued by employers offering apprenticeships, it has been an important part of government policy to reduce the percentage leaving compulsory school without a certificate. Overall, considerable success has been registered. In 1970, 17.4 percent of all leavers from the main school lacked a certificate, but by 1983 the figure was reduced to an admirable 9.2 percent. Forecasts to 1995 suggest that about 10 percent will continue in this category (BW 1984, no. 10/11, p. 178). However, the situation has not improved for disabled leavers.

Among those who fail to earn the main school leaving certificate, special school pupils constitute a disproportionate and growing proportion. In 1960, one-fifth of the main school leavers failing to obtain the certificate were from special schools, rising to 43.2 percent by 1979 and dropping to just under one-third by 1983; forecasts for 1984-1995 indicate another rise, so that about half of all without a main school certificate would come from special schools (BW 1984, no. 10/11, p. 178).

Information, Guidance and Placement

As youth move through the lower secondary regular and special schools, a variety of services are offered in and out of schools to assist in the transition to additional general education, school-based vocational education, apprenticeship, or work. Pupils from the main special schools most frequently are contemplating apprenticeship or unskilled work (Bleidick et al., 1979).

Educational information and advice is left to the states and schools. In addition, preparation for choice of occupation is included in the school curriculum and career education teachers operate in many schools. Counseling on scholastic matters and individual psychological matters is regarded as a duty of every teacher who also can draw on school psychologists, social education experts and other specialist persons for difficult cases. The social education service is particularly valuable for disruptive, emotionally disturbed, or slow learner pupils; it works with families, pupils and teachers, as well as providing direct services to the youth. In addition, the special classes and schools have specialist advisers for disabled children.

The Federal Government, through the Federal Institute of Labor, holds a monopoly on occupational information, counseling, and placement services. With few exceptions, all private, not-for-profit, state, and local government efforts in these areas are outlawed. Officers of the Federal Institute of Labor talk to groups and individuals in the schools, hold counseling sessions with pupils and parents, and give assistance with apprenticeship placements. Another placement office aids youth leaving lower secondary school without an apprenticeship and seeking a job. Disabled youth have all of these services in their special schools and at local employment offices, as well as recourse to the specialized staff of psychologists, doctors, etc., serving the Federal Institute of Labor counseling service.

Aided by government, many youth organizations, social welfare groups, and associations concerned with particular disabilities also play a role in educating the disabled and easing the transition from school to training or work.

Training System

Initial vocational training, known abroad as apprenticeship and in Germany as "the dual system," is the preferred stage after compulsory education and is an extremely important part of the German educational, training, and employment systems; it is almost the only route to a skilled job. Apprenticeship, lasting from two to three and a half years, is a contractual relationship between an employer and a youth, entailing government regulated skill training in a specific occupation and final examinations. Apprentices experience practical training in the workplace and/or a training center, general and related theoretical instruction in schools, and production work. On completing an apprenticeship satisfactorily at 18 or 19 years of age, a disabled youth, like any other, may decide, if asked, to remain at the training firm as a regular employee or to seek a suitable position with another firm. Depending on the economic climate, German youth in the post-apprenticeship period experience less unemployment than youth in other European countries in the same age group. As a whole, German youth have a comparatively low rate of job and occupational mobility. All of the main actors in Germany--employers, trade unions, government, parents and pupils--set great store by the apprenticeship system as an antidote to school weariness as well as a preparatory process and transition mechanism between school and work.

Disabled youth from the special schools are able to find apprenticeships less frequently than other school leavers. A follow-up study of a sample of young people who left the main schools, intermediate schools, and special schools in 1977 showed that by 1980 the following proportions of each group had not been through an apprenticeship: (See Table 1). More recent estimates are that 60 percent of all special school pupils receive no form of further education or skill training; this compares with 40 percent for main school leavers lacking a final certificate and 73 percent of all young foreigners (BW 1983, no. 2/3, p. 42).

Any completed apprenticeship is regarded by employers as a good general preparation for work, but it has been shown that training in some occupations is superior to others in terms of job placement, transferable skills, income, opportunities for advancement and further training or education, and social status. Those disabled youth who are able to obtain apprenticeships tend to be hired disproportionately for the least favorable types. In 1980, over half of the disabled apprentices were concentrated in only 15 of the 445 recognized training occupations and these were among the less popular fields. Disabled male youths, for example, were over-represented in apprenticeships for gardeners, public administration clerks, office clerks, and draughtsmen.

Table 1 Percentage of 1977 West German School Leavers Not Completing Apprenticeships, 1980

School Leaving Status	Percent
All school leavers	8
Main school with a certificate	5
Intermediate school with a certificate	5
Main school without a certificate	21
Special school for learning disabled, with or without certificate	35
Foreign youth	20
Special school working class girls without a certificate	11
Main school working class girls without a certificate	46

(CEDEFOP *News*, no. 8, 1984, p. 1; no. 3, 1982, p. 2.)

Small craft firms and the public service train most disabled apprentices, while industry and commerce are notably unresponsive. A high proportion of disabled apprentices is successful in passing their terminal examinations. The equivalent of apprenticeship is provided in rehabilitation institutes where disabled youth are trained in low level occupations and have a high rate of success in the final apprenticeship examinations; 94 percent passed in 1980 (CEDEFOP *News* no. 4, 1982, p. 4). However, employment prospects are poor (OECD 1983).

Beyond apprenticeship, there is a complex and comprehensive system of additional training and/or vocational education opportunities, making it possible for a successful apprentice to rise to managerial ranks. Again, the disabled do not share proportionately in the promotion system.

Government Policies for Education and Training of Disabled Youth

The alternative of unskilled labor at the end of compulsory education is strenuously opposed by German policy-makers, and, to their credit, the proportion of the age group in this activity is lower than in most European countries. Although the wage offered unskilled youth considerably exceeds the allowances for apprentices set by collective bargaining agreements, and therefore is attractive to youth from foreign or other low income families, such jobs are dead-end and become scarcer with technological change. Disabled youth and the children of foreign workers are disproportionately found among unskilled young workers.

Current policies for handicapped youth in the transition from education to training are:

1. *To reduce the proportion who fail to obtain a main school leaving certificate*. An additional school year is offered in some states, providing a second chance to obtain the leaving certificate plus additional occupational orientation. The Federal Institute of Labor finances a prevocational year for unemployed school leavers which allows successful participants to enter apprenticeship. Some states have similar programs (OECD 1981, pp. 150-51). About half who completed the program either obtained an apprenticeship place or entered the basic vocational education year. Intended as a broad introduction to occupational skills which would eventually

replace the first year of apprenticeship, the basic vocational education year, mostly through schools, has not been well accepted by employers and tends to be a reserve program for youth who fail to obtain a regular apprenticeship.

2. To increase the number of apprenticeship openings in the face of economic recession and large baby boom cohorts requiring more places. Disabled youth have been particularly squeezed by the imbalance between the demand for and supply of apprenticeship places. While the response from employers to appeals has been strong, the total number and type of additional places has been inadequate, especially for disabled youth. Government at federal and state levels has had to create additional places for training or substitute programs; disabled youth are disproportionately found in the substitute and less highly regarded programs (BW, 1981, no. 5, p. 66; no. 6, p. 100; 1983; no. 2/3, p. 42).

3. To induce employers to accept qualified disabled pupils as apprentices and conduct preparatory programs for the unqualified. Employers are free to hire as they please for apprenticeships and are not required to notify the Federal Institute of Labor placement office about apprenticeship openings; only about 60 percent of such openings are notified. One effort, therefore, has been to increase the percentage of openings notified, so that placement officers have more opportunities to assist disadvantaged youth. Another approach is to encourage employers to offer modified or special skill training courses to disabled youth. The Federal Institute of Vocational Training has issued model training regulations to standardize and simplify such training (BW 1981, no. 5, p. 71).

   Most recently, the Federal government launched a pilot project with financial support to employers who accepted disabled youth for regular apprenticeship training. A survey among participating firms revealed that such youth can be trained satisfactorily provided that the training occupation is carefully matched to the nature of the disability, attention is given to the capacities and interests of the youth, and the employer is willing to incur additional training costs due to the needs of the disabled youth for extra instruction and care. Most of the 14,000 places created for disabled youth are publicly subsidized and a large and permanent government subsidy may be necessary to maintain or enlarge employer recruitment of disabled apprentices, except at a time when the supply of all young candidates is considerably smaller than the number of apprenticeship openings.

4. To prepare better for and to reduce the rate of dropout from apprenticeships among disabled youth. The special schools were found not to provide pupils with sufficient practical experience of industry prior to leaving school, needed both by those entering apprenticeship directly and by those proceeding to the basic vocational education year. Either in the context of instruction about occupations or by special arrangements, federally financed

pilot programs have been established in special schools (BW 1984, no. 7, p. 99).

It is difficult to appraise the success of these programs because they have been conducted during times of high unemployment (for Germany) and negative employment growth. Perhaps disabled youth would have fared even worse in the absence of these programs.

Other Programs for Disabled Youth

Disabled youth, who do not receive apprenticeship training at 15 or 16 and become unemployed from unskilled jobs or who have never worked, are served by youth unemployment programs designed to remedy educational deficiencies and provide work experience. In addition, the German government sponsors and supports five main programs open to disabled youth as well as adults (Semlinger, 1984).

1. An extensive network of rehabilitation centers and institutes provides vocational training.
2. Employers are able to receive a subsidy toward wages for up to a year if they employ disabled persons, and the firm can obtain financial assistance in adapting a workplace.
3. By law, employers with 16 or more employees are required to fill six percent of posts with severely disabled persons under a quota system dating back to World War I, but now mainly serving civilian victims of accidents, disease, or genetic handicaps. Covered employers can make a monthly payment per worker to the public relief office in lieu of providing jobs.
4. Sheltered workshops and similar enterprises are recognized and assisted financially by government, although they are mostly operated by not-for-profit or community organizations.
5. As a leader among Western European countries in social welfare measures and payments, West Germany provides generous disability pensions and sickness benefits.

The Federal Labor Institute can reimburse a wide variety of expenses of disabled persons undergoing rehabilitative measures or seeking jobs and will make loans in addition to assist in adapting an apartment to a disabled person's needs. Severely disabled employees are protected from dismissal or lay-off. A spokesman to the employer is elected by the disabled workers in every workplace with more than five disabled workers. The extent of participation in all of these measures by disabled youth is not known, but the disabled as a whole continue to suffer more unemployment and inferior employment, quantitatively and qualitatively, than nondisabled (Semlinger, 1984).

With regard to disabled youth in schools, new or revised programs for pupils in the special schools, designed to ease the transition from school to training or further education, are evidence that the German authorities are not fully satisfied with the results of their efforts to date. Yet if is also clear that few countries approach the standards or outcomes achieved in Germany through a highly structured system (Johnson, 1982). We now shift our examination to another leading nation in Western Europe.

Sweden

Sweden contrasts with West Germany in a number of respects. Organized as a central government, Sweden has considerable uniformity in its educational system; the local education authorities have limited scope for independent action (Sweden, 1984b, pp. 6, 9-10). As a pioneer in the mainstreaming of disabled pupils, Sweden has devoted considerable attention and financial support to this goal since the 1960s (Stenholm, 1984, pp. 94-97; Sweden, 1984a; Paulsson, 1981). Central government sets policy directly and finances measures, rather than initiating pilot projects as in West Germany.

Sweden is preeminent among nations in its dedication to the right to work for all, including the disabled, its commitment to participation by the disabled in managing their own affairs, its efforts to give the disabled opportunities for independent lives, and its provision of social welfare and benefit programs for the disabled (Sweden, 1984a).

Cooperative action and joint responsibility of various types of public bodies at all levels of government are probably as well or better established in Sweden than any other industrialized market economy nation, and the participation of interest groups, such as employers organizations and trade unions, is highly developed.

Educational System

Compulsory education lasts for nine years, from age 7 to 16, with a uniform general education curriculum except for some electives in the final years. Preparation for working life is considered one of the main tasks of the compulsory school. As outlined by the new curriculum instituted in 1982, the main elements are:

1. Educational and occupational information and counseling are offered in group and individual sessions, utilizing full-time personnel (consultants without a teaching background, but specially trained for work in the schools).
2. Practical labor market orientation (PRAO) gives each pupil six to ten weeks of direct contact with workplaces. Beginning in the earliest school years with field visits, PRAO provides that during the last three years of compulsory school each pupil will spend at least one week at three workplaces, representing the manufacturing, commerce, and social service sectors respectively. PRAO is prepared in advance in the classroom, supervised at the workplace by employees of the firm who have received special training, and discussed by pupils on returning to their classes. Besides observing particular types of jobs, pupils are to be informed about the economic, political and technical factors influencing the conditions of working life, with emphasis on such concepts as the meaning of work, the right to work, job evaluation, pay, work sharing co-determination, and the occupational environment.
3. Integration of information about working life is injected into subject matter teaching, using outside instructors from firms, employment service officials, parents, and retired persons. Part-

time work experience of pupils and the internal operations of the school as a workplace should also be utilized.

4. In the final year, the schools provide special measures for youth at risk of dropping out or not going on to upper secondary school. Information and guidance on choice of occupational field and working life are to be offered to stimulate an interest in further education or to better prepare for job entry.

In order to equip teachers and other school personnel to carry out the new curriculum, provision for in-service courses, periods of employment in other settings, and other support measures were instituted. Prospective teachers now are given credit for work experience outside of teaching and it is proposed that they be required to have 15 months or more of other work experience prior to entering teacher training.

Another institution, established in 1977, plays an important role in devising programs to prepare pupils for working life. The joint consultative committee for school and working life (SSA) has been created in every county and municipality, with regional and national advisory committees. Organized and staffed by the local education authority (LEA) and consisting of representatives of employers' associations, trade unions, the employment service, social welfare agencies, the school board, school staff, pupils, the parents, SSA Committees are charged, among other duties, with devising programs to improve the education and training of disadvantaged youth, among whom the disabled are an important category.

Physically disabled children must attend regular schools, unless they are mentally retarded, blind or deaf (Sweden, 1981a, 1981b; Paulsson, 1981). With the exception of the deaf or severely hearing impaired, children increasingly attend regular schools run by local education authorities. The special schools for the blind and visually impaired, operated by the national government, are being transformed into resource centers for the regular schools; while the county councils run schools for the mentally retarded, who by law must attend school between the ages of 7 and 21, also are taking in a diminishing share of the retarded. Less than 1/2 or 1 percent of Sweden's school age children are now in special schools and very few disabled children receive no formal education, including that provided by the government in medical institutions and at home to children unable to attend schools (Stenholm, 1984; Sweden, 1984a).

To assist the integration process, all new schools are required to incorporate suitable facilities for disabled pupils and existing schools must modify premises. Transportation to school, technical aids, and, where necessary, a subsidized personal assistant, are provided. The new curriculum for the compulsory school, instituted in 1982-83, and the regulations and ordinances on special education establish a range of methods for strengthening the mainstreaming movement by altering and adapting school procedures and timetables to the needs of individual pupils with special difficulties, among whom the physically and learning disabled are prominent (Sweden, 1981a, 1981b, 1982a).

Special education teachers work in classrooms and small groups with regular teachers. If measures to supplement regular class instruction are insufficient, temporary assignment to special teaching groups is utilized, but sparingly; remedial classes have been abolished. An adjusted or reduced course of studies is another temporary expedient, while special day-schools exist for pupils needing after-school hours care and supportive contact with adults (Sweden, 1982a).

In addition to a new system of resource allocation to schools facilitating this program of aiding pupils with special needs and their families, there is active participation by the well-developed support staff of psychologist, nurse, welfare officer, and special assistant both in conferences on individual pupils and meetings with parents. Schools also cooperate with the county psychiatric clinic for children and young people (Sweden, 1982a). Regional consultants for pupils with physical disabilities assist schools and pupils with problems of environment, technical aids, and teaching methods. They also cooperate with the National Center for Teaching Aids for the Disabled. While not without problems, the execution of this ambitious program for disabled youth seems to be advancing as planned (Sweden, 1981b).

Follow-up of 16-17 Year-olds

A distinctive feature of Swedish provision for youth is the responsibility assigned to the schools for youth leaving the compulsory school without entering further education, training, or employment. This group, calculated at 10-20 percent of the 100,000 leaving compulsory school each year, is heavily composed of youth who have done poorly at school, but disabled youth also are disproportionately represented. It is the responsibility of the local education authorities, together with the SSA committees, to implement the government's Youth Guarantee--that every 16 and 17 year-old should be in education, training, work experience, or a job. A broad spectrum of programs and activities has been established to care for this age group, and since 1983, an individual program has been devised for each youth, with follow-up on progress at 10-week intervals. As a consequence, little unemployment now occurs in this age group which increasingly is being kept out of the labor market.

Upper Secondary Education

In the early 1970s, the separate secondary schools on the German model were abolished and replaced by comprehensive schools through upper secondary education. It is the intention that almost all young people should proceed directly from compulsory education to upper secondary education, since the employment opportunities for 16 year-olds have been unsatisfactory and shrinking due to technological innovations and changes in work organization. Special efforts are made, both in compulsory school and in the early period of upper secondary school, to attract youth who are doubtful about continuing their education. Some 25-30 percent of those who complete compulsory education do not immediately enter upper secondary education, although the proportion is reduced when account is taken of those that enter after a year or so. Measures are also taken to get dropouts to return to school, for example, by giving credit for work experience.

Upper secondary education is organized along comprehensive lines, but pupils are sub-divided into a two-year vocational program (over twenty subject subdivisions), a two or four-year technical program, and a three-year academic program. Basic requirements in general education subjects apply to all pupils and completion of any program qualifies a young person for tertiary education, provided they have certain prerequisites such as a knowledge of English. Those attending the upper secondary school receive a government student grant. In addition, the structure of the schools permits one-year or shorter special courses to be offered to youth at risk.

Within the secondary schools, a rising share of all enrollments have been in the two-year vocational program which commonly involves a period of practical experience in a workplace or school workshop. In addition, such pupils have a week of contact with a workplace, similar to PRAO in the compulsory school; a similar program is being tried experimentally for those in the academic program. Group and individual occupational information and guidance is available as in compulsory school.

The great majority of disabled youth who complete the compulsory school attend regular local upper secondary schools, but two special residential schools are available--one for severely physically disabled and one for deaf pupils. Mentally retarded youth in this age group attend practical training schools that emphasize social adjustment. They also attend special vocational schools with four-year programs (or longer) offering instruction in coping with working life, the development of working capacity, personal and interpersonal skills, and specific occupational skills (Sweden, 1981a).

Regular upper secondary schools have particular responsibilities toward pupils with functional impairments or special needs. Special instruction, separate classes, a reduced course of studies, prolonged schooling, exemption from courses, and a specialized syllabus are among the methods utilized (Sweden, 1981a).

Despite these provisions, criticism has been leveled at the educational and occupational information and guidance given to pupils with regard to choice of program in upper secondary school, because over 80 percent of physically disabled pupils are found in the theoretical subjects which, without a completed higher education, are not good preparation for employment. As a consequence, "unemployment is heavy, and it is far easier to arrange disability pensions than to interest employers in hiring young persons with physical disabilities" (Sweden, 1981b, p. 6; Sweden, 1981a, p. 21). Even the special attempts to introduce innovative measures such as the use of escorts in job search efforts, group sessions on job search, and computerized job search have not greatly improved the disadvantaged position of disabled youth in the job market (Soder, 1984).

Programs Open to Older Disabled Youth

Apart from normal employment, which is difficult to obtain in the midst of the prolonged recession and the accompanying disproportionate rise in youth unemployment, older disabled youth have access to a wide range of general and special employment and training programs. "Labor market policy for the disabled in Sweden is an integral part of general labor market policy. The disabled are not confined to programs especially designated for them but participate to a high extent in other programs as well. The employment offices handle the placement of the non-disabled as well as the disabled" (Wadensjo, 1984, p. 32). Among the disabled, however, youth have not been a primary target, since reduced working capacity is lowest for teenagers and young adults and rises regularly with increasing age (pp. 6-16). Disabled youth may be somewhat underrepresented in the general and special programs, compared to prime-age and older disabled workers.

General programs, such as labor market training and public works for the unemployed, have had high participation by disabled. The Job Security Law also offers protection to disabled persons already employed, among other groups of workers.

Of the special labor market programs from which disabled youth may benefit, the most important are vocational rehabilitation, sheltered work (which includes homework, office work centers, and industrial relief work), jobs with a wage subsidy, grants and loans for motor vehicle purchase, grants for tools and equipment, grants for adaptation of workplaces, and grants for an assistant at the workplace for a severely disabled worker. In addition, the employment offices have conducted several fairly successful campaigns to place the disabled in unsubsidized jobs. Under the Promotion of Employment Act, agreements have been made with employers, both public and private, specifying, for example, that a certain proportion of new employees should be disabled, or that some wage subsidized jobs would be created, or that provision would be made to assess work capacity of persons from the vocational rehabilitation program (labor market institutes). Finally, adjustment groups at workplaces, representing the employer, employees, and an employment service officer protects the position of existing disabled employees and, to a lesser extent, deals with hiring the disabled (Wadensjo, 1984, pp. 42-78).

Although Sweden has strongly endorsed the principle that income support should only be temporary and that employment should be the goal, in recent years income support, including the disability pension, has been used to an increasing extent, especially for older workers. The disability pension is especially criticized when the recipients are under 25 because it isolates them socially. A return to the work principle for those under 60 and especially youth is under active discussion (Wadensjo, 1984, pp. 78-84). One step in this direction was a government proposal for disabled unemployed youth in 1983:

> When youth unemployment is prevalent, there is a danger that the only way people who are young and handicapped can support themselves is to accept an early retirement pension or sick benefit. The efforts to halt and reduce youth unemployment must naturally also include the young people who have some form of handicap. Special efforts are also required to ascertain the potential and interests of these young people and to prepare them for work or vocational training. It may, for instance, be necessary to adapt both the work itself and the working environment specially to their needs.
>
> The Government proposes that the Labour Market Board should be granted an additional Skr. 1 million for the vocationally-oriented rehabilitation of the young and handicapped who have a pension or sick benefit, or who are in danger of being retired early. Furthermore, it is proposed that the Labour Market Board should be allowed to use, at most, an additional Skr. 1 million from other project funds for work with these young people. These efforts are to be focused on giving young people work or training that can lead to a job. (Sweden, 1983a)

This special attention to the needs of disabled youth is typical of Sweden's wideranging social policy that seeks out particular groups with special problems at the same time that it attempts to integrate disadvantaged groups into the mainstream of education, training, and employment (Wadensjo, 1984). At the same time it indicates that the transition from school-to-work remains more difficult for disabled youth than for nondisabled of equal ability. Even when the education and training problems are solved, employment problems remain.

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Commentary: Education and Training of Disabled Youth in Western Europe

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Dr. Beatrice Reuben's comprehensive and fact-filled paper is both informative and stimulating. It provides an extensive informational base regarding the status of education, training, and employment for disabled youth in Western Europe and describes the advancements West Germany and Sweden have made in the development and delivery of services to disabled youth.

Through Dr. Reubens review of the policies and programs of the European Community (EC), the innovative approaches designed to alleviate the complex problems associated with transition are presented. One example involves the effort of engaging employer organizations and trade unions in addressing the needs of the disabled of all ages. Along with extensive programs in education, this type of intervention is crucial if we are to remove social barriers from the workplace. In his discussion on attitudes, Jacobus tenBroek (a blind lawyer who founded the National Federation for the Blind and served as its president for 21 years stated that:

> actual physical limitations resulting from the disability more often than not play little role in determining whether the physically disabled are allowed to move about and be in public places. Rather, that judgment for the most part results from a variety of considerations related to public attitudes, attitudes which not infrequently are quite erroneous and misconceived. (p. 867)

Helpful comparisons between Western Europe and the United States with regard to education and employment issues need to be developed by scholars and practitioners alike. Comparisons, such as how progress in mainstreaming compares to efforts in the United States, would be helpful in providing a broader frame of reference for policymakers. Also helpful would be analyses of the results of program evaluations. Analyses of evaluative reports would provide a clearer sense of the strengths and shortcomings of the programs Dr. Reuben discusses. Some important unanswered questions need to be addressed. Does the Swedish pension system for the disabled youth act as a disincentive to the pursuit of training programs? What are the social and educational ramifications of accepting a disability pension at a young age?

Another valuable addition to the literature would be reflections on how the United States might learn from, and apply, some of the program strategies which have been successful, especially in Sweden. While the United States does not have the advantage (or disadvantage) of such a homogeneous culture, certainly many of the underlying principles of these successful approaches could be applied in more heterogeneous societies with different political structures.

In general, a sharing of successful ideas across continents would be of enormous benefit. In addressing the global issue of transitional programming for handicapped youth, there is a clear need to facilitate an international exchange of information. Such exchanges could be initiated through the formation of an international association; international conferences; targeted Fulbright awards; exchange programs for students practitioners and faculty; and the establishment of international research and development programs through agencies such as the United States Agency for International Development (USAID). The International Program for Agriculture Knowledge Systems (INTERPAKS), for the funding of short courses, is an example of such a program in the field of agriculture.

In this paper Dr. Reubens indicates that in spite of the exemplary education and training programs taking place in Sweden, transition from school-to-work remains more difficult for the disabled youth than for the nondisabled of equal ability. The European Community's Action Programme - entitled "Transition of Young People from Education to Adult and Working Life" is a initiative policy for transition which was developed by the Councils and Ministers of Education (1984) of 10 member countries. It focuses on giving all young people, including the young disabled, preparation for life by helping them cope with the challenges and uncertainties of the late twentieth century. Its basic principles and areas for action are similar to those discussed at the School-to-Work Transition Forum which produced this set of papers. However, when reviewing the 30 pilot programs resulting from this plan, programs which are widely spread across Europe, only two (the Netherlands and Northern Ireland) list the handicapped as part of their target population. Consequently, uncertainties arise as to whether transition policies and programs are actually reaching the local level.

Such information leads one to wonder if perhaps the ED policy initiatives have run into the same difficulties as they often do in this country, i.e., not being adopted at all, or being adopted but not materializing into quality programs producing desired outcomes. All too often policies are established as the result of political and public pressure with little input from those who actually work with students. It is common for teachers to be required to spend an inordinate amount of time serving on committees only to discover in the end that top down administration issued a plan which doesn't reflect the teachers' concerns. This has happened to teachers so often it is not surprising that they lack a strong feeling of commitment when particular programs are thrust upon them.

The most effective program changes are those developed as close as possible to the population served. Teachers need to be part of a collaborative effort with persons from higher education, business, and outside agencies to develop, carry out, and evaluate programs. Such involvement provides an opportunity for all parties to share and learn from each other. Most importantly, it gives those who work closely with students a vested interest and ownership in the adopted programs.

Dr. Reuben's expertise in the education and training systems of Europe would suggest that her future involvement is crucial if we are to have comparative studies between the United States and European programs for disabled youth. In addition, her leadership, internationally, could provide the impetus for a global exchange of ideas. Such efforts will lead to successful programs for educating, training, and employing disabled youth thus enabling them to meet the challenges of tomorrow.

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Chapter 9

Transition to Employment for Individuals with Moderate and Severe Handicaps

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Transition to Employment for Individuals with Moderate and Severe Handicaps

> The most crippling disability of all may not be found among disabled individuals, but instead may be found in the very service system federal and state officials have created to help them. The system is uncoordinated, inconsistent, and often incomprehensible. An estimated 8% of America's gross national product is spent each year on disability programs, yet most of this funding supports dependency....In fiscal year 1983, the Social Security Administration spent 23 billion dollars in support payments that kept many disabled persons from working. Across the street, the Rehabilitation Services Administration spent one billion dollars to restore these same people to employment. And I note and underscore that's a twenty to one discrepancy (Will, 1985, p. 79).

Madeline Will, the Assistant Secretary of Education and chief of the U.S. Office of Special Education and Rehabilitative Services, made this comment during the opening remarks at a recent Conference on Youth with Disability in Wayzata, Minnesota. The conference contents were later published in the *Journal of Adolescent Health Care* (1985). Ms. Will, and many other federal officers, have recognized the difficulty that the existing service system presents to an individual and his or her family once they leave public school services.

Recent demonstration programs (Paine, Bellamy, & Wilcox, 1984; Rusch, 1986; Vogelsberg, 1986; Wehman & Hill, 1985), research into existing service practices (Bellamy, Sheenan, Horner, & Boles, 1980; Pomerantz & Marholin, 1977; Vogelsberg, Williams, & Friedl, 1980; Whitehead, 1977), and follow-up studies in competitive employment settings (Kochany & Keller, 1981) and public school settings (Mithaug, Horiuchi, & Fanning, 1985; Hasazi, Preskill, Gordon, & Collins, 1985) have indicated that community employment is possible for individuals with severe handicaps and that the present adult and public school service systems do little to facilitate this transition.

A Model for the Transition Process

The Office of Special Education and Rehabilitative Services (OSERS, 1985) has recognized these limitations and initiated federal funding in five specialized areas in an effort to establish model service delivery. These five areas when combined and incorporated into existing service systems should facilitate improved community employment opportunities for all individuals with handicaps.

High School Improvement

The first part of this model includes field initiated research and demonstration projects that are focused on making schools more effective, integrated, and related to actual community employment needs. Transition programs, funded in many public school settings across the country, are developing the process for identifying community referenced training, community-based training, and the transition from public school service delivery to adult service delivery and/or employment.

Improvement in Employment Opportunities

At present there are few incentives that can be offered to an employer to encourage their participation in hiring of individuals with severe handicaps. Many employers share the same low expectations for this population that present service providers hold. If they do provide employment opportunities, it is frequently out of a sense of community or charity, rather than an expectation that the results will be positive for their business. The financial incentives available (Targeted Jobs Tax Credits, salary subsidy, etc.), also frequently convey mixed messages to the employer about the individuals that they are 'being paid' to hire (Vogelsberg, 1986). Some states, such as Minnesota (Will, 1985), have implemented a two-tiered schedule of benefits to individuals with handicaps to encourage acceptance of employment offers by individuals with handicaps and remove some of the existing financial disincentives to employment.

Federal and State regulations have to be carefully examined to determine where benefit patterns can be altered to encourage employment rather than discourage it. If an individual can become employed, still maintain financial benefits (although reduced), still maintain medical benefits, and be guaranteed the ability to have all benefits reinstated once a position is lost then some of the disincentives to employment may be removed. Some businesses have initiated novel approaches to employment by providing individuals on full disability benefits with innovative employment opportunities that allow them to become contributing members once again (SPIN, 1985).

Improvement of Programs that Provide Transition

An increase in the quality and availability of community college programs, vocational-technical institutes, and vocational education programs to include individuals with more severe handicaps is another approach advocated by the federal government to expand the availability of employment for this underserved population. At present there are small community or private postsecondary college programs being federally funded for individuals with more severe handicaps. Trinity College in Burlington, Vermont is presently developing a tuition-based postsecondary training and employment program for individuals with mental retardation (Vogelsberg, 1983). Other college-based programs are being initiated through federal and local funds to expand training and employment opportunities previously considered only appropriate for individuals without handicaps or individuals with only the mildest disability (Brolin & Elliot, 1974).

Improvement of Time-Limited Services

The present system of vocational service to individuals with handicaps is fragmented, difficult to access, and frequently inadequate for individuals with handicaps. Careful examination and enhancement of these systems should have a substantial effect upon actual employment outcomes for individuals with mild handicaps. Time-limited services must be expanded, coordinated, and improved to facilitate positive effects. The present focus on numbers and classification of successful placements such as 'homemaking, sheltered workshop, or work activity participant' must be altered and new outcomes adopted to guarantee appropriate service delivery. Although time-limited services indicate an end to service, some present systems provide no more than a careful review of want ads in the newspaper for individuals seeking employment.

Vocational education, Job Service, vocational rehabilitation, the Job Training Partnership Act, and other time-related services must become coordinated and focused on competitive employment outcomes rather than training objectives. The expectation that isolated training objectives for a population of handicapped individuals are sufficient to result in community employment is frequently incorrect. For those individuals and programs where this proves to be sufficient, strong follow-up analysis must be implemented along with the ability to provide comprehensive and systematic program replication of successful efforts. Some programs, such as the Job Club approach (Azrin & Besalel, 1980), have proven to be effective time-limited approaches to successful employment. The ability of various systems to successfully implement them has, unfortunately, been poor.

Improvement of Transition to Employment with Enduring Support

This is the fifth and final component of the model. It involves ongoing (enduring) support and is the newest initiative that attempts to address the long-term needs of individuals with severe handicaps. This is also the most difficult concept for traditional service providers to understand and implement. For many years the individuals who required long-term support were considered unemployable. Recent research has shown that these individuals can work in community integrated settings if they are provided with appropriate long-term support (Kiernan & Stark, in press; Rusch, 1986).

The federal government has recently funded supported employment projects in ten separate states. These programs are being initiated with federal funds ($500,000 per site annually for five years) to provide a model for future supported employment development. The long-term goal is to re-direct existing funds (day program, work activities, sheltered workshop) from segregated settings to community employment settings.

This chapter will focus on community employment with enduring support for those individuals with severe handicaps. The other four priorities within the OSERS model are addressed in many of the other chapters and focus service development on individuals with less intense needs.

Public School Follow-Up Studies

Recent literature and research have focused on what happens to the individuals once he or she leaves public school. The limited survey research that is available (Hasazi et al., 1985; Mithaug et al., 1985; Zollers, Conroy, Hess, & Newman, 1984) indicates that school vocational training activities have had little positive effect on employment potential for individuals with handicaps, and that in-school vocational training activities are seldom available. The highest correlation between public school activity and post-school paid employment is a paid, part-time job during school years (Hasazi et. al., 1985). Although this information indicates a need to alter many aspects of the current service delivery system for all individuals, it also suggests that public school preparation for work is limited and frequently non-existent to individuals with severe handicaps.

Forms of Supported Employment

The term supported employment implies enduring support to maintain paid community integrated employment for the individual. Bellamy, Rhodes, and Albin (in press) have provided a rationale and description for supported employment. The Developmental Disabilities Act of 1984 and the 1984 Amendments to the Education of the Handicapped Act and the Rehabilitation Act (Federal Register, 1984) provide definitions of the term "supported employment". It means paid employment for persons with developmental disabilities when competitive employment at or above the minimum wage is unlikely and when, because of their disabilities, they need intensive ongoing support to maintain job performance. It is conducted in a variety of settings, particularly work sites that are integrated with persons who do not have disabilities and supported by whatever activity is necessary to sustain this work. Support activities include, but are not limited to, supervision, training, transportation, attendant care, adaptive support, and parental/residential counseling. Vogelsberg and Schutz (in press) provide a description and definition of the various components that differentiate between competitive, transitional, supported, and sheltered employment.

Four supported employment alternatives have been described by Mank, Rhodes, and Bellamy (in press). They include distributed jobs, industry based enclaves, mobile work crews, and benchwork. Each of these forms of supported employment offer varying degrees of integration and support. The term distributed jobs refers to the on-the-job training and support of individuals in one position in an industry or business setting, and will be the focus of the remainder of this manuscript. Full descriptions of all of the models are available in the literature (Kiernan & Stark, in press; Paine, et al., 1984; Vogelsberg, Ashe, & Williams, 1985; Wehman & Hill, 1985).

Service Needs for Individuals with Severe Handicaps

The results of research and practice have furnished service providers with very specific guidelines for service delivery. These guidelines must be incorporated into the concept of long-term enduring support in community employment and residential sites if successful community employment and life functioning for individuals with severe handicaps is expected. The guidelines include at least the following.

Community-based and Community Referenced Training

Although there are federally funded research projects studying the areas of generalization and maintenance, at present we do not have sufficient technology to guarantee that individuals with severe handicaps can be taught in isolated and simulated settings and be able to perform those skills in the natural setting. Until better methodology is developed, the best practices include training at the actual site where the behavior will be expected to occur. In some instances, similar work sites (such as a University cafeteria) have been utilized as training sites and then employment placements developed in similar University cafeterias. This model has proven effective due to the similarities of the 'training site' to the 'employment site' and the availability of intensive training assistance at the new job site.

No matter what the initial training approach, it has been repeatedly demonstrated that some individuals with severe handicaps will have difficulty generalizing skills from one setting to another. Training and follow-up services in actual employment and living environments are a necessary component of successful programs at this point in the development of services.

Ongoing Support in All Settings

Employment and residential programs must have coordinated and consistent service delivery to facilitate maximum independence for these individuals. The present system of fragmented service coordination between settings and times of the day or week disrupt consistent instruction and cause difficulty in the acquisition of new skills. Parents, guardians, residential and recreation providers, as well as personnel representing Mental Health, Vocational Rehabilitation, and Social Security are but a few of the individuals that must be kept up to date on activities and needs of individuals to facilitate their growth. The concept of a coordinated service system has been in existence for a long time, but is still difficult to find operating within existing systems. Funding, varied agency support, and different classifications for different service have all caused some difficulty in the realization of this ideal. At present, new vocational programs for individuals with severe handicaps must assume the responsibility of total service coordination to guarantee that residential, vocational, community, and recreation needs are met.

Integrated Settings

The concept of segregated and isolated service delivery for the benefit of the individual (intensity of support) and the agency (resources and facility) is slowly expiring. One of the difficulties with segregated settings has been the inability to simulate the actual conditions found in the projected and desired final environment. Social as well as vocational expectations vary widely across community employment sites and typically have no relationship to expectations within sheltered workshops, work activity programs, or day programs. The most successful approach to identify necessary skills for instruction is to analyze the final environment (residential, vocational, recreation, or community) and then to teach in that environment. This also assures that other nonhandicapped individuals can be assisted in their efforts to understand and work with individuals with severe handicaps.

The concept of the trainer-advocate (Wehman, 1981) is central to establishing acceptance in community settings. The ongoing interaction between the trainer-advocate, the worker with handicaps, and nonhandicapped co-workers and supervisors facilitates this acceptance.

Social and Vocational Survival Skill Training

Many individuals lose community employment opportunities due to difficulties other than actual task performance. Transportation, social behavior, money management, personal hygiene, dress, time management, and many other skills that can be considered necessary for multiple activities (vocational, residential, recreational) and must be learned and performed appropriately for an individual to 'survive' in a community setting (Schutz, Vogelsberg, & Rusch, 1980). The necessary sophistication level of these skills can be established by the actual employment and community sites rather than through a commercial curriculum. If an individual works in a blue collar position at an industrial plant, then the ability to dress and attend formal social functions may become a low priority training objective. If, however, the individual works in a setting where suits or dresses are required, then the objectives for dressing take a higher priority.

There are multiple additional guidelines for service delivery to the individual with severe handicaps. The present focus on integrated settings, coordinated service delivery, and inclusive skill development across settings are primary components. Adoption of this orientation will guarantee successful identification of appropriate skill sequences and appropriate sites for instruction and remove some of the previous difficulties encountered when service providers attempted to 'transfer' training from setting to setting.

Description of Successful Employment Programs in Vermont

For the past six years (1979-1985) the state of Vermont has been developing and implementing small employment training programs for individuals with severe disabilities. Each of these programs have focused solely on community employment outcomes through a concentrated survey, place, and training approach as advocated by Rusch and Mithaug (1980) and Wehman (1981).

The Vermont programs are small (usually three to four staff), located in rural settings, and have a comprehensive service system that identifies positions, analyzes these positions, develops a training program, identifies an individual who has been previously classified as severely disabled and 'unemployable', places the individual on the job site with an on-the-job trainer and advocate, provides intensive training for a two to six month period, and then provides long-term follow-up services to guarantee that the individual will have his or her service needs met to maintain employment. More complete descriptions of the programs are available elsewhere (Vogelsberg, 1986; Vogelsberg et al., 1985), but a brief description of administrative issues, service design, and results will be offered below.

Administrative Issues

As the programs were being conceptualized by surveying existing service systems (Vogelsberg, Williams, & Friedl, 1980), it became apparent that Vermont was similar to other states in their lack of sophisticated community employment services for individuals with severe handicaps (Appleby, 1978; Bellamy, Sheehan, Horner, & Boles, 1980; Greenleigh & Associates, 1975; Stanfield, 1976; Whitehead, 1977). To avoid the usual difficulty with transition from public school service to adult service, programs were initiated within adult service agencies. These programs were expected to assist individuals moving out of the public school settings as well as individuals presently in the adult service system.

Decisions about where an employment training program belongs within the existing service system were difficult to make. Those students within public school settings obviously required placement services prior to "graduation". Those individuals within the existing adult services also required some form of placement service. In addition the difficulty of moving existing services in new directions was recognized. The initial decision within Vermont was to place programs within Regional Mental Health centers. As the programs matured, it became apparent that new programs would develop and operate better if they were located in a separate (more business like) location such as an industrial park or an office building.

Although later programs were located in buildings other than the Mental Health centers, funding still was passed through the Regional Centers. These centers had large budgets and multiple program responsibilities. To assure that new programs would be allowed to develop with autonomy, the following administrative guidelines were established (Vogelsberg, 1986): (a) separate budgets for the program; (b) cooperative interagency agreements for employment; (c) staff position descriptions that excluded facility training; (d) separate advisory and support boards; (e) guarantee of qualified consultation; (f) consistent *monthly data reports* to funding agencies; (g) specific employment and disability expectations; (h) ongoing staff development and training; and (i) quarterly and annual written reports to funding agencies.

These guidelines forced a separation between programs within each region and guaranteed that the new programs would develop and implement service delivery prior to becoming a component of the existing system. Of the six programs now running within six geographic regions of the state, only one is still housed within a mental health facility, but all are funded and ongoing components of the existing regional mental health system.

Service Design

In a rural state like Vermont, it was necessary to develop programs that had the capability to access whatever jobs were available, rather than to focus on one specific occupation. For this reason, an on-the-job training emphasis was developed. There are four major components of the service design: referral, evaluation and job development, on-the-job training, and placement and follow-up.

Referral. Potential workers are referred to the programs from public school settings, work activity centers, sheltered workshops, and several other agencies. As each person is referred, contact is established and an evaluation is begun to determine if the individual can be served within the existing system or if intensive services of supported work programs are required.

Evaluation and Job Development. During the initial intake assessment, permission to study previous files is obtained and additional evaluations are established as necessary. For the purposes of the actual on-the-job training a Vocational Assessment and Curriculum Guide (VACG) (Rusch, Schutz, Mithaug, Stewart, & Mar, 1982) and an Individual Skill

Inventory (Vogelsberg, Spaulding, Patterson, Schenck, & Phillips, 1984) are performed. These evaluations indicate skill levels in functional community areas.

As evaluation activities continue, the program job developer is surveying the community for potential positions. Once a specific position is developed a careful job skill inventory is performed to identify all components of the position that may have to be taught to the individual.

Once a number of individuals have been evaluated and a job has been developed, a careful match of the skills required on the job and the capabilities of the individuals evaluated is performed. Potential candidates are identified, screened, and (if transportation, agency support, and parental/guardian support can be verified), the individual is provided with a placement on the job site for intensive on-the-job training.

On-the-Job Training and Placement. The job skill inventory (a locally developed instrument) is utilized to initiate training. Detailed task analyses of each component requiring intensive training are prepared. This phase of the program could last from one week to six months depending upon the complexity of the position and the ability of the new worker to learn the various position requirements. As on-the-job training is occurring, social survival skill training in the community is also being provided. Any skill area that an individual requires to maintain employment is either taught by the program or facilitated through other agency support services. Careful definitions and criteria for movement from on-the-job training and placement to follow-up are used, and the process of moving from a training phase to a follow-up phase is carefully monitored. This transition from training to follow-up (usually during the third to sixth month) has proven to be a crucial point where positions are frequently in jeopardy (Vogelsberg, 1985).

All of the positions earned at least minimum wage for the trainees from the beginning of training. This was accomplished by guaranteeing that the job would be completed to the employers satisfaction. Frequently this meant that the on-the-job trainer had to complete parts of the job or work later hours, but the job was always completed and there was never the need to pay anyone less than minimum wage.

Follow-up. Once an individual enters the follow-up phase, he or she is provided with daily, weekly, and eventually monthly contacts to assure ongoing success. When the need for retraining or new training is identified it is provided by the program. These follow-up contacts are continuous throughout the life of the programs (six years in one setting), and have been one of the most important factors providing some stability to each worker's employment. Follow-up contacts are made with employers, co-workers, parents and/or guardians, service agencies, and other involved individuals. An average of seven monthly contacts between the various agencies and individuals are necessary to assure ongoing coordination and effective communication.

Success of the Programs

Detailed data on the program have been published elsewhere (Vogelsberg, 1986; Vogelsberg, 1984; Vogelsberg, et al., 1985), but a brief synopsis will be offered here. Each program of three full time staff has been able to provide twelve individuals with severe disabilities with community employment each year. As of May of 1985, one hundred and twelve individuals had been provided with community employment.

Of these individuals approximately 65 percent are still employed over the varying time periods of the programs (six years for the first program in central Vermont). Utilizing a three month placement success indicator (as the Office of Vocational Rehabilitation does in Vermont), more than 85 percent of the placements have been successful. This figure is offered for comparison with other three-month figures only; the main orientation of the Vermont programs has been to maintain individuals in community employment through long-term service delivery rather than to establish employment percentages and then move on to other placements.

Most of the positions are part-time, about 30 percent are full-time with full benefits, and all command at least minimum wage. Program costs have easily been counterbalanced by reductions in day program and transportation costs. Those programs that have been providing services for more than three years have saved service dollars that equal the costs of the programs themselves.

The average cost per placement has been about $6,000 with ongoing follow-up costs of $1,000 per year after the first year. This compares very favorably with the ongoing cost of day services of $5,000 per year for the rest of the individual's life.

The success of the Vermont programs effectively illustrate that individuals with severe handicaps can become employed in community settings if they are provided with intensive structure and follow-up services to maintain that employment. Other successful examples are available (Kiernan & Stark, in press; Rusch, 1986; Wehman & Hill, 1985; Wehman, Hill, Goodall, Cleveland, Barrett, Brooke, Pentecost, & Bruff, 1982).

Recommendations

Although there are multiple demonstration projects available, there are few total-service systems in operation. As the demonstration stage reaches completion, service systems must begin to incorporate proven service models into their own systems. An outcome-oriented, development process must begin to strengthen the community employment initiative. Systems adoption and change should begin in public schools, adult services, service coordination systems, personnel preparation programs, and business and industry settings.

Public Schools

The public schools can assist individuals with severe handicaps to access the community by adopting community-based training to assure generalization of skills to natural settings (home, work, community, recreation, etc.). There is a need to emphasize the vocational and community survival skills that have a direct relationship to actual position requirements in each student's expected final environment.

An additional component within the public school settings should be the establishment of placement programs with on-the-job training and follow-up services for those individuals about to leave or 'age out' of public school. The establishment of integrated paid community work opportunities during the final years of school will provide students (and teachers) with an improved understanding of what is required in community settings.

Finally, public school services that are presently not available to individuals with severe handicaps (such as technical training) must be expanded to include all individuals. The development of a separate service system for individuals with severe handicaps (while practically necessary at this time) is only the beginning of a process that should eventually leave all students with multiple options for being served in the public school.

These changes within public school settings are beginning; there are new position titles (community trainer, job placement specialist) for teachers who work specifically with individuals with severe handicaps. In some settings, adult service providers work directly with students on job sites during their final year in-school. Many options are being explored and there is a need to maintain flexibility of position responsibilities to meet the needs of the student.

Adult Services and Service Coordination Systems

The term "transition service" has been utilized to mean many forms of movement from one setting or service to another. Within service systems some form of total service coordination is necessary to assure that all of the present service options are known to and accessed by persons with severe disabilities. Adult services should become community-based, small in actual number of staff (large facility orientations are detrimental to any community development efforts), employment oriented, and have strong follow-up and enduring support capabilities.

Multiple community employment options (Mank, Rhodes, & Bellamy in press) should be developed along with postsecondary training opportunities. Incentives for community employment outcomes should be established rather than the present system that funds and reinforces facility service. Finally, strong interagency cooperation is necessary if coordinated services are to be realized.

Personnel Preparation Programs

University programs preparing professionals in such fields as special education, vocational rehabilitation, vocational education, and rehabilitative psychology exist in most states. Unfortunately, few of them offer a coordinated multidisciplinary emphasis that results in the training of an effective service provider. Programs must be developed which promote business expertise to facilitate better communication bevaluable content that should be passed on to students. New and progressive personnel preparation programs will be necessary to address new service needs.

Business and Industry

The above areas all focus on service delivery or preparation of professional personnel. There is also a need to focus on the process of altering present misconceptions about the ability of individuals with handicaps and the expectations of low-quality social services held by the business community. These difficulties can be addressed through a variety of orientations.

The establishment of incentives within businesses to develop acceptance of employees with handicaps and their support personnel would greatly facilitate quality programs. The continued documentation of the advantages to business and industry to accept and work with individuals previously considered 'unemployable' is necessary. There are businesses that have strong employment orientations for individuals with handicaps and their successes should be disseminated (Equal to the Task, 1982).

Federal incentives to employ individuals who have difficulty learning must be carefully examined, explained to employers, and utilized to the benefit of employers and individuals with handicaps. Ongoing advocacy at tween social services and business and industry. Each discipline has the federal and state levels to increase incentives and provide reinforcement to businesses that are involved is necessary. A business and (re)habilitation partnership is possible that will benefit both orientations. This partnership is in its infancy and must be accepted and expanded to support the new program efforts toward competition employment.

Discussion

Demonstrations of successful, integrated community employment programs are evident in practice and literature. The focus of the field should now be toward expanding and integrating existing systems (public school, adult service, and personnel preparation) to improve the knowledge base and sophistication of these service models. Research and demonstrations are necessary to assure systems adoption and change. Over the past decade multiple demonstrations of effective programs have occurred. The next phases must include processes for full and effective assimilation of these demonstrations by existing systems.

The final outcomes of this adoption should be improved integration of individuals with handicaps into all community settings (vocational, residential, community, and recreation). Colleges and universities, business and industry, public schools, and adult services agencies will each have to cross new boundaries to assist in expanding quality services to severely handicapped persons, and, at the same time, realize the significant benefits that can be achieved for individuals with handicaps.

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Commentary: Transition to Employment for Individuals with Moderate and Severe Handicaps

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Dr. Vogelsberg's chapter highlights numerous issues pertaining to competitive employment for severely disabled people. Many of the issues raised can be conceptualized in one of three main areas of concern.

The first broad area of concern is that successful employment for this population largely depends on some form of enduring support following placement. Many demonstration projects throughout the country have shown that individuals with severe handicaps can maintain employment using this model. Indeed, Dr. Vogelsberg provides an excellent outline of one such program developed and implemented in Vermont. The Vermont System is of particular note considering its scope. Many successful demonstration projects cover a much smaller geographic area. An analysis of the political, social, and economic conditions of the State of Vermont might clarify to what extent this state is representative of others, and thus, under what circumstances this model might be adopted elsewhere.

A second broad area of concern addressed by Dr. Vogelsberg is the need for severely handicapped individuals to be integrated with their community. This concept, a significant part of the normalization principle, has far-reaching implications for meaningful employment. Prior to training, the vocational and social survival skills selected for instruction must first be validated within the community. After appropriate goals are chosen, instruction should take place in the targeted work setting. Community-based training has been shown to have significant ramifications for maintenance and generalization of acquired skills. The technology for this training is available, yet not widely utilized. This may explain some of the problems cited by Dr. Vogelsberg in the current time-limited services offered by such agencies as Job Service and Vocational Rehabilitation. It is conceivable that many more disabled individuals could profit from time-limited services if these agencies were to adopt this technology.

Another significant aspect of community integration is the understanding and information it imparts on the nonhandicapped public, in this case, employers and co-workers. While actual integration provides the best demonstration of the abilities of severely disabled workers, much can be learned by active information sharing and cooperation among schools, adult service agencies, and businesses.

The significant issues involved in interagency cooperation form the third major concern within Dr. Vogelsberg's chapter. These problems surface throughout his discussions on transition, adult service agency involvement, personnel preparation programs, and business and industry. However, this issue needs to be stressed at the public school level as well. The public school is the logical beginning of the transition effort whether via an Individualized Transition Plan or some other means of communication. The school must help develop a link between their services and those provided by agencies the disabled individual will utilize upon graduation. Another feature of cooperation within the public schools is that of special education and vocational education. While Dr. Vogelsberg touches upon this issue, explicit strategies for encouraging and maintaining close collaboration need to be adopted. The expertise of both fields is needed to teach appropriate and rewarding job skills to severely disabled individuals. The federal government could take a lead in coordinating vocational and special education through more specific legislation aimed at this goal. In fact, changes in federal policy could greatly enhance the coordination of many agencies by, for example, removing classification barriers and changing the criterion for successful job placement.

In summary, Dr. Vogelsberg effectively illustrates the interplay among issues affecting the employment of severely disabled individuals. He also offers the reader an opportunity to analyze a model program which has successfully addressed or circumvented many of these significant problems.

Chapter 10

Challenges and Future Directions

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Challenges and Future Directions

The preceding chapters offer a number of complex insights regarding the issues, present thrusts, and opportunities surrounding education and training programs for handicapped youth preparing to enter the workforce. Secondary and postsecondary vocational education programs, along with those sponsored by the Job Training Partnership Act, constitute the major publicly-funded programs with a primary mission of providing employment-related education for handicapped youth. (Programs in special education, rehabilitation, mental health, developmental disabilities, and corrections are also supported by tax dollars and are concerned with this population. However, they were not examined directly herein because these programs are not charged specifically by federal legislation with a primary responsibility for preparing handicapped youth for employment.) The professional education programs of public universities and colleges are also a vital source of preparation for those students with handicaps who receive support services and successfully complete the rigorous curricula. Increasingly, significant education and training opportunities are being provided by the nation's businesses as the need for job-related training becomes more critical to keep pace with changing technology and organizational changes in the workplace. Finally, private vocational schools have also been examined briefly for the training opportunities they offer.

As these various education and training enterprises undertake efforts to serve handicapped youth, they each are faced with a number of common and unique challenges. As the foregoing chapters suggest, the challenges are both diverse and complex in nature. This concluding chapter provides a synthesis of the major issues and outlines possible future directions for consideration by professionals, policymakers, and scholars interested in improving educational and employment opportunities for handicapped youth.

The Changing Contexts: Education and Employment

Social, political, and economic shifts have historically had marked influences on both schools and employment in the U.S. Indeed, the provisions for equal educational opportunity and affirmative action in the employment of handicapped persons represent major social reforms which have created major changes in mission of schools and colleges, their programs and services, as well as the hiring practices of employers who contract for services with governmental agencies. Several other factors, such as international competition and shifting levels of employment, also have significant influences on education and employment.

The level and nature of employment options will greatly influence the extent to which handicapped youth are employed in the future. Factors such as immigration policies, international business competition, and the extent to which technology affects the workplace need to be carefully monitored in terms of their impact upon the employment of handicapped youth. Collectively or individually, these factors may have a profound impact upon all youth and adults who are seeking employment in the future, but particular attention must be paid to the effects upon handicapped youth. New policies and alternative employment programs may be needed if these factors create artificial discriminatory practices in employment.

The increased attention to academics and general education and the proposed reforms in teacher education and credentialling are two major concerns in the education arena at present. Following the publication of the A Nation at Risk in 1983, many states and local school boards have moved to increase high school graduation requirements, while most community colleges and universities are or have recently expanded their general education requirements. Such initiatives have clearly placed a lower priority on specialized and vocational education. Without strong vocational and professional education programs in comprehensive educational institutions at the secondary, postsecondary, and collegiate levels, the employment prospects for handicapped and nonhandicapped youth will likely be significantly foreshortened.

Recent proposals for reform in teaching and teacher education (Carnegie Commission, 1986; The Holmes Group, 1986) seek to extend and strengthen teacher education programs and upgrade the status of the profession. Both of these proposed reforms fail to include significant mention of how the educational needs of handicapped youth are to be addressed by teachers with advanced training or teachers employed in reorganized schools. Hopefully, the gains made in the educational equity thrust of the 1970s will not be cast aside in the rush to achieve a narrowly defined charter of "educational excellence" in the 1980s and 1990s.

Expanding Goals and Purposes

As noted above, one of the clearly established trends in education at all levels has been the call for increased academic and general education. The vast majority of the reports authored by national and state commissions studying education over the past three years have called for greater attention to basic skills development among high school graduates and broader general education requirements for college and university students. Generally speaking, greater attention to English, mathematics, science, and foreign languages is critical for handicapped as well as nonhandicapped students. However, for youth with significant learning limitations, the demands for increased academic rigor must be carefully and thoughtfully considered. The value of occupational and vocational courses (e.g., plant science, business English, technical mathematics) as a means for teaching and reinforcing basic skills instruction must be stressed. Curriculum alternatives need to be developed that allow students to receive academic credit for such courses.

Many schools and colleges have recently adopted requirements that focus on the development of computer literacy among all students. If they are successfully integrated into computer courses, handicapped youth are likely to benefit significantly from these new requirements. As Mr. Mcrae noted in his paper (Chapter 6), employment options in the computer field are clearly on the increase; handicapped youth can profit from structured computer-assisted learning strategies, and computers help to standardize and restructure jobs that previously could not be performed by certain handicapped youth. Clearly, efforts to ensure that handicapped students develop at least minimal computer literacy skills are crucial to their future employability and their adjustment to adult life.

Several of the federal programs serving handicapped youth call for the development of individualized education, rehabilitation, or employability development plans. Cobb and Phelps (1983) have noted that little attention is given in these plans at the junior and senior high school level to career related instruction, career guidance, and planning. Increasing the focus on career development and planning in the early grades and increasing parental involvement in the process should result in more meaningful and realistic career choices and individually appropriate postsecondary experiences. The development of individualized plans that follow students throughout their educational careers may also, over time, strengthen program articulation and coordination between secondary and postsecondary programs. Further, extended and articulated individualized planning reinforces the need for recurrent, lifelong learning by handicapped youth.

Develop, Test, and Extend Innovative Programs

Many of the papers and commentaries describe various innovative and experimental approaches being developed within the education and training systems. Special projects and programs, such as the Fair Break Centers described by McCrae, the Job Corps described by Tindall, and the competitive employment programs for severely handicapped youth described by Vogelsberg, need to be established and extended within each of the major systems. Without systematic research, development, and demonstration efforts within the systems as well as across systems, improvement of local practice is likely to continue floundering in most communities. Ideally, a national network of innovative programs should be developed which carefully studies different interventions (e.g., job clubs, computer-based employability skills training, alternative work experience programs, etc.) as they are implemented with different groups of handicapped youth. Cobb noted insightfully, in his paper, that research and program development focusing on moderate and severely handicapped youth has far outnumbered similar efforts focused on the mildly handicapped, even though the latter population has been a public policy priority for a considerably longer period of time.

Individuals with research and evaluation skills need to be more actively involved in the development and implementation of these demonstration projects. To date, many programs and special projects lack carefully developed program designs and rigorous evaluation plans that are essential to providing the field with more conclusive evidence about the program interventions.

Also of major importance is the need for more systematic dissemination of information describing recently completed research and model demonstration programs. The recently funded Transition Institute at Illinois (Rusch & Phelps, in press) is designed, in part, to disseminate information about model programs and effective practices through national meetings, conferences, and electronic networks. However, additional efforts are needed within each of the major education and training systems to ensure that information about effective programs and practices for handicapped youth are widely disseminated and adopted.

More Functional Assessment and Less Labeling

In several of the papers dealing with postsecondary and private sector training, the concern is raised regarding the issue of self-identification for receiving supportive services or special accommodation. For handicapped youth who have been so labelled in high school, they often look forward to leaving high school and their label behind. However, for many, the impact of their learning or physical disability remains a significant barrier to further education and employment. How can education systems serving older handicapped youth and young adults encourage young people to come forward and utilize available support services without stigmatizing themselves socially?

Clearly, there are no simple answers to this dilemma. As a prerequisite for all education and training programs, more functional and curriculum-related assessments would be useful. Such assessments should identify the extent to which all prospective trainees (and not just those who are handicapped) have attained the skills, aptitudes, knowledges, attitudes, and interests that are deemed essential prerequisites for entering the program. Further, special resource services (such as remedial education labs and special counseling programs) should be labelled appropriately to minimize stereotypes and should be made available to all students, including those who have been identified as handicapped. Finally, vocational instructors, professors, and trainers need to be trained to conduct in-class assessments that help to identify early on those students likely to need special assistance in completing the course or program. Appropriate collaboration among the instructors and specialists serving handicapped youth then becomes paramount in importance.

Needed Research and Impact Studies

The lack of a substantial research base for determining effective practices was cited earlier. In addition to short-term, intervention focused research and demonstration projects, there appears to be a critical need for longitudinal studies which track handicapped youth through the schooling, transition, and employment process. Well constructed follow-up studies with adequate response rates are difficult to locate for many of the training and education systems addressed in this volume. Follow-up and longitudinal studies focusing specifically on handicapped youth are virtually nonexistent. While a national longitudinal study of handicapped youth is presently being pilot tested by the U.S. Office of Special Education and Rehabilitative Services, state agencies, local schools, colleges, JTPA service delivery agents, and other education providers need to develop procedures for longitudinal studies and program evaluation follow-up studies that will address their individual policy and planning needs.

Longitudinal studies of programs and their effects upon students are crucial to developing better insights and policies regarding such questions as: patterns of transition from education to work, post-program employment patterns for youth with different handicaps, continuing education needs, costs and benefits of alternative program models, extent of reduction in dependency on social welfare programs, and levels of employer and student satisfaction with programs. Reliable data and information regarding many of these issues are generally not available at present, but are essential in the shaping of informed, long-range policies.

Expanding Professional Education

As many of the authors have noted, the educators, trainers, and other professional personnel who comprise the education and training workforce have an enormously diverse profile. For the most part, they come to their positions based upon their successful experiences in technical and business fields or in managing personnel functions, and typically have, at best, limited preparation in pedagogy. Even college professors in professional schools and colleges such as Engineering and Business seldom take education courses during their doctoral studies. Similarly, vocational and technical instructors tend to have extensive preparation and experience in their technical fields, but minimal or no formal training in curriculum design, instructional methods, and techniques for teaching handicapped youth. In several of the employment-related education and training disciplines (such as job training, higher education, or business and industry training), there are no formal credentialling requirements for teachers or instructors.

Efforts are needed by universities and colleges to establish programs and courses that can be taken by those planning to teach in the various employment-related education and training fields. For instance, the vocational-technical teacher education programs that have historically prepared teachers for secondary schools need to be expanded to focus on preparing teachers of adults for settings such as business and industry, technical institutes, or job training programs. Such programs need to include coursework and experiences in working with handicapped youth, continuing and adult education, computer-based education, as well as the conventional preparation in technical subject matter and pedagogy. Adult and continuing education programs might also be expanded to serve these professionals. Over the past two years, the departments of vocational and technical education at the University of Illinois and the University of Minnesota have launched undergraduate and graduate level programs for professionals working in business and industry training (Leach, 1983; Swanson, undated).

In addition to pre-professional education programs, significant needs exist for training those professionals who are already employed in varied teaching and training positions. Field-based, continuing education programs provided through special courses, conferences, and workshops for professionals working in employment-related education and training are essential to the sharing of effective strategies and programs across the systems. Professional organizations such as the American Society for Training and Development, the American Vocational Association, and the National Employment and Training Association should collaborate with university departments and colleges of education in developing such programs.

Increasing Access

Throughout the past decade, the federal civil rights mandates have assured that handicapped youth have access to those employment-related training programs that are federally funded, and to those institutions that receive federal student aid. However, simple enactment of the mandates has not eliminated stereotypes, heightened performance expectations, or eliminated local policies and practices that screen out or severely limit the preparation of handicapped youth in these programs. Equally important, employers need to examine fully the potential inequities and discriminatory practices in their recruitment, employment, and personnel policies. While federal equal opportunity employment legislation has been the focus on a number of training programs aimed at employers and private sector firms, handicapped individuals, when considered as a group, still tend to have significantly higher levels of unemployment and significantly lower earnings than other members of the labor force. Being able to enter and successfully complete employment-related education and training programs in both public and private sectors is critically important to the elimination of long-term, artificial inequities in employment practices and earnings.

Enhancing Collaboration and Articulation

In examining the job training systems for youth, Taylor, Rosen, and Pratzner (1982), note the importance of a coherent federal policy which enhances both coordination and articulation efforts.

> At the present time, there is no comprehensive human resource development policy for public and private involvement in education and training of workers, nor is there a coordinated system for providing such training. The formulation of public policies to promote the effective development and use of human resources in hindered by a lack of knowledge about the current structure of education and training opportunities for work and how well the structure serves the needs of individuals and the needs of the labor market. (p. 7)

There appears to be some excellent coordination efforts occurring between vocational education and JTPA programs in the training of both disadvantaged and handicapped youth. Also, a number of reports suggest that apprenticeship and vocational education programs are effectively articulated in several states. Federal and state policy and local initiatives should seek to develop more systematic coordination across the total education and training system. Vocational education programs beginning at the secondary level need to be carefully sequenced and coordinated with postsecondary vocational education, higher education, JTPA programs, and other publicly supported systems. Intersystem articulation plans should enable all youth to proceed through the career development process (i.e., the stages of career awareness, planning, exploration, preparation, and entry and adjustment) efficiently and effectively. Taylor et al. (1982, p. 8) urge federal policy makers to consider legislation and regulations that will provide: adequate incentives for coordination, similar definitions and common fiscal years, shared advisory committees, similar accountability systems, and shared activities across federal and state agencies.

To facilitate the effective participation of handicapped youth in each of the various education and training systems, coordination with special education, vocational rehabilitation, and developmental disabilities programs will also be essential at the federal, state, and local levels. As several of the papers have noted, many of the employment-related education and training systems and the personnel who work within them have had very limited experience in serving handicapped youth and virtually no experience in serving severely and moderately handicapped youth. Effective collaboration with special education and rehabilitative services is of fundamental importance. The professionals from these disciplines have the knowledge and skills regarding effective assessment, instruction, and counseling techniques for handicapped youth that most professionals in the education and training system have never received. Over the past fifteen years, various collaborative model policies and programs have been developed, primarily involving vocational education, special education, and vocational rehabilitation. Most of these efforts have focused on secondary and postsecondary vocational education programs. It is imperative that these interagency, articulated approaches be further developed, rigorously evaluated, and extended to the other education and training systems such as public job training programs, proprietary schools, training and education in the private sector, and higher education.

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